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Volume 91

USAF BIOENVIRONMENTAL NOISE DATA HANDBOOK

Volume 91

P-3A Aircraft, Far-Field Noise

JUNE 1977

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AEROSPACE MEDICAL RESEARCH LABORATORY
AEROSPACE MEDICAL DIVISION
AIR FORCE SYSTEMS COMMAND
WRIGHT-PATTERSON AIR FORCE BASE, OHIO 45433

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FOR THE COMMANDER

HENNING E. VON GIERKE
Director
Biodynamics and Bioengineering Division
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The USN P-3A is an anti-submarine warfare aircraft powered by four T56-A-14 turboprop engines. This report provides far-field measured and extrapolated data defining both physical and psychoacoustic measures of the bioacoustic environments produced by this aircraft operating on a ground runup pad for four engine/power conditions. Far-field data measured at 17 locations are normalized to standard meteorological conditions and extrapolated from

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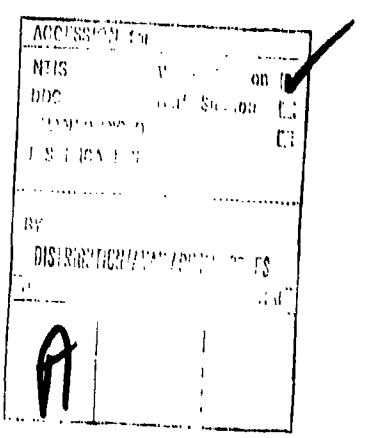
75-8000 meters to derive sets of equal-value contours as a function of angle and distance from the source. These contours are measures of: overall and band sound pressure levels, C-weighted and A-weighted sound levels, preferred speech interference level, perceived noise level, and limiting times for total daily exposure of personnel with and without standard Air Force ear protectors. Refer to Volume 1 of this handbook, "USAF Bioenvironmental Noise Data Handbook, Vol 1: Organization, Content and Application", AMRL-TR-75-50(1) 1975, for discussion of the objective and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc.

PREFACE

This report was prepared by the Biodynamic Environment Branch, Aerospace Medical Research Laboratory, under Project/Task 723104, Measurement and Prediction of Noise Environments of Air Force Operation.

The author gratefully acknowledges Mr. John Cole for his assistance in preparing this report, Capt Nick Farinacci, Mr. Harald Hille, and Mr. Jerry Speakman for their assistance in acquiring the raw data, Mr. Keith Kettler, Mr. Henry Mohlman and Mr. David Eilerman of the University of Dayton for assistance in the mechanics of data processing, and Mrs. Peggy Massie and Mr. Mike Patterson for assistance in typing and preparation of the graphics.



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INTRODUCTION

The USN P-3A is an aircraft used for anti-submarine warfare and is powered by four T56-A-14 turboprop engines. The aircraft was manufactured by the Lockheed Aircraft Corporation and the engines by the Allison Division of the General Motors Corporation.

This volume provides measured and extrapolated data defining bioacoustic environments produced by this aircraft during ground runup operations. Such data are essential to evaluate ear protection requirements, limiting personnel exposure times, voice communication capabilities, and annoyance problems associated with ground runups of the P-3A aircraft.

This volume is one of a series published by the AMRL under the same report number (AMRL-TR-75-50) as a multi-volume handbook that quantifies the noise environments produced at flight/ground crew locations and in surrounding communities by operations of USAF/USN aircraft and ground support equipment. The far-field community-type, noise data in the handbook describe the noise produced during *ground operations* of aircraft, ground support equipment, and other ground-based equipment or facilities.

Volume 1 of this handbook discusses the objectives and design of the handbook, the types of data presented, measurement procedures, instrumentation, data processing, definitions of quantities, symbols, equations, applications, limitations, etc. Volume 2 provides a method and data for adjusting the handbook's far-field noise data, which are for standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure), to derive comparable data for other meteorological conditions. *Refer to Volumes 1 and 2* (references 1 and 2) for such information because it is not repeated in other handbook volumes.

A cumulative index lists those aerospace systems contained in the handbook, and identifies the specific volumes containing each type of environmental noise data available (i.e., inflight/flight crew and passenger noise, near-field/ground crew noise, far-field/community noise). Volume numbers are assigned sequentially as individual volumes are published. This index is periodically updated as individual volumes are published and is available upon request from AMRL/BBE, Wright-Patterson AFB, OH 45433. Organizations on the distribution list for the handbook will automatically receive a copy of each updated index.

Direct any questions concerning the technical data in this report and other handbook volumes to: AMRL/BBE, Wright-Patterson AFB, OH 45433; AUTOVON 78-53675 or 78-53664; Commercial (513) 255-3675 or (513) 255-3664.

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1. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 1: Organization, Content and Application*, AMRL-TR-75-50 (1) Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.

2. Cole, John N., *USAF Bioenvironmental Noise Data Handbook, Volume 2: Procedure to Evaluate Effects of Non-standard Meteorological Conditions on Far-Field Noise*, AMRL-TR-75-50 (2), Aerospace Medical Research Laboratory, Wright-Patterson Air Force Base, Ohio, 1975.

FAR-FIELD NOISE

MEASUREMENTS

AMRL acquired the far-field data during a 1-hour test period, thus keeping similar meteorological conditions throughout the test. Figure 1 shows the ground runup area (taxiway), ground cover, aircraft orientation and microphone measurement sites on the semicircle. The center of the 75 meter radius semicircle used in surveying the T56-A-14 engines was on the ground directly below the intersection of the aircraft's centerline and the plane passing through inboard engines' propeller planes.

Table 1 provides cockpit readouts of engine characteristics (RPM, fuel flow, etc.) for each power setting used in the far-field tests. Also listed in this table are the surface meteorological conditions during data acquisition.

All microphone measurement sites are in the acoustic far-field of the source where the sound wavefronts sphericaly diverge and the noise source may be regarded as a point source.

A portable microphone/tape-recorder system was used to sequentially record the noise at each far-field location. The microphone was attached to a hand-held pole, pointed at the source (0° angle of incidence) and vertically scanned from 0.5 to 3 meters for a period of 5-10 seconds during data acquisition at each microphone location. These samples were then time-integrated to derive a root-mean-square sound pressure level. Vertical scanning and time-integrating together reduce anomalies frequently present in data acquired by a fixed height microphone.

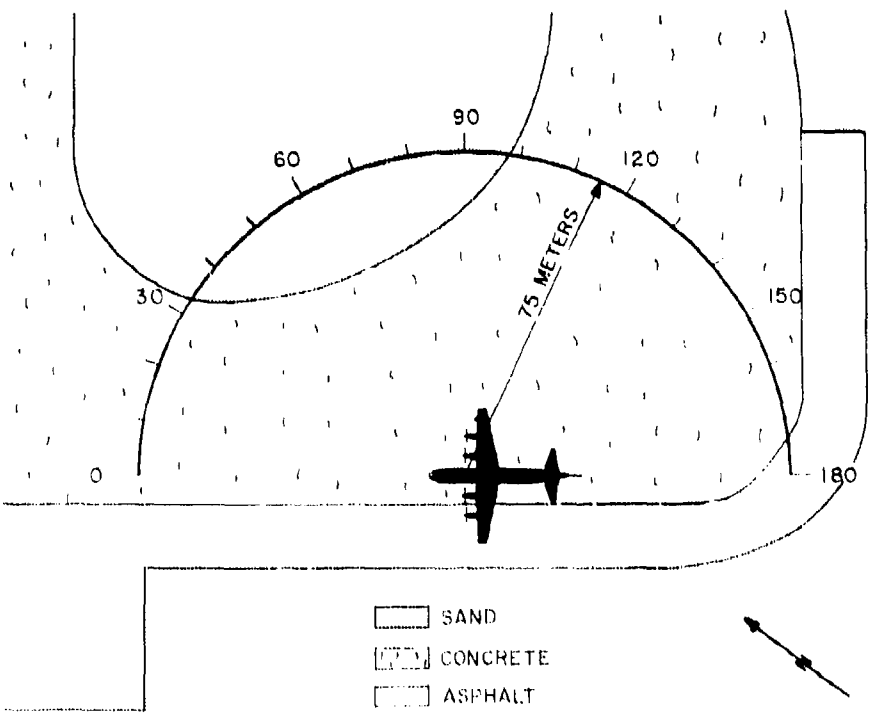


Figure 1. Far-Field Measurement Locations On The Taxiway, At ALF, San Clemente Island

TABLE 1

TEST CONDITIONS
FOR FAR-FIELD NOISE MEASUREMENTS

P-3A Aircraft, Ground Runups, ALF, San Clemente Island
Tail #151355, 15 May 1973

Aircraft Engine Operation

Idle (Low RPM)	#2 & 3 (Inboard) Engines
	170 Shaft Horsepower
	74 % RPM
	611 C Turbine Inlet Temperature
	600 LBS/HR, Fuel Flow
Idle (Low RPM)	#1 & 4 (Outboard) Engines
	113 Shaft Horsepower
	73 % RPM
	599 C, TIT
	600 LBS/HR, FF
Maximum Power	#2 & 3 (Inboard) Engines
	3750 Shaft Horsepower
	100 % RPM
	965 C, TIT
	2120 LBS/HR, FF
Maximum Power	#1 & 4 (Outboard) Engines
	3760 Shaft Horsepower
	100 % RPM
	971 C, TIT
	2100 LBS/HR, FF

Meteorology

Temperature	16.7 C
Bar Pressure	0.767 M Hg
Rel Humidity	67 %
Wind — Speed	1 M/Sec (2 KTS)
— Direction	340 Deg

RESULTS

Table 2 lists the overall and 1/3 octave band SPL measures at the far-field locations under meteorological conditions at the time of the test. Data in all other figures and tables are based on these levels. These data were normalized to 100 meters distance and standard meteorological conditions (15 C temperature, 70% relative humidity, 0.760 meter Hg barometric pressure) and used to derive the graphic data in Figure 2 which provides a compact summary of the far-field noise characteristics of the P-3A aircraft in a standard format.

Figure 3 and Table 3 present two basic acoustic measures, the acoustic power level describes the power radiated by the source as a function of frequency. The directivity index is a standard acoustical engineering measure that describes the geometric way in which the source radiates this power as a function of both frequency and angle from source. These basic source measures are primarily of interest for acoustical engineers and noise generation/control specialists.

Estimates of the noise levels for intermediate power settings (e.g., 90% RPM) and/or different number of engines operating (e.g., single engine) can be determined as explained in Volume 1 of this handbook.

Figures 4 through 10 are sets of equal noise contours describing seven different measures of noise as a function of angle and distance from the source for standard day meteorology. They are respectively, overall sound pressure level, C-weighted sound level, A-weighted sound level, perceived noise level, speech interference level, permissible exposure times for personnel and octave band sound pressure levels.

Data excessively influenced by spurious background/electronic noise were eliminated from all figures and tables. No data are presented at the 170/180 degre locations for the idle power nor at the 150/160/170/180 locations for the takeoff power settings because of turbulent air flow behind the aircraft. Typically, the A-weighted levels for these angles are 10 to 20 dBA below the level measured at the preceding microphone location.

Test personnel performed noise surveys during quiet periods when the background noise was minimal, e.g., early in the morning when no other aircraft or engine test stands were operating. Data eliminated because they were near the backgound/electronic noise were generally not significant because the levels were so low (e.g., Table 2, idle power).

Volume 2 of the handbook describes the influence of meteorology on far-field noise environments, and provides, if required, the factors necessary to adjust the handbook's standard meteorological day data.

TABLE: 2 — MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-841
RUN 81
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25									60<	61<	62<	64<	62<	63<	62<	64<	66<		
31.5	68<	61<	62<	61<	63<	62<	63<	63<	64<	65<	64<	65<	64<	64<	62<	63<	68<		
40	70<	71<	71<	70<	67<	69<	67<	68<	66<	70<	66<	66<	67<	68<	69<	69<	73<		
50	83	84	84	83	81	81	81	80	79	79	77	77	77	78	82	79	82		
63	71	71<	72	71	69<	71	71	71	70<	73	72	73	73	74	74	71<	74		
80	74	73	73	72	69	72	70	68<	68<	77	73	74	75	78	76	74	74		
100	84	82	83	81	79	79	74	73	71	73	76	76	79	81	82	82	82		
125	80	80	79	79	75	74	72	72	72	74	76	77	80	79	79	81	78		
160	83	81	81	79	78	75	75	74	75	78	75	77	78	82	83	82	82		
200	84	83	83	81	79	77	74	73	73	75	76	79	83	83	84	84	82		
250	86	86	85	85	80	78	74	75	74	76	78	81	85	84	86	84	84		
315	85	84	84	83	80	78	73	74	74	74	77	79	82	83	83	82	85		
400	83	82	82	82	78	76	74	72	71	72	76	77	81	83	81	81	83		
500	81	81	81	81	78	76	74	73	72	71	74	75	79	82	81	80	81		
630	82	82	79	79	79	77	75	74	76	78	83	85	88	89	87	85	88		
800	77	78	78	78	77	76	72	72	72	73	75	78	82	82	83	84	77		
1000	78	77	76	76	76	75	72	72	71	73	74	76	80	81	82	84	76		
1250	77	77	75	75	74	74	72	71	69	72	75	80	82	83	83	82	76		
1600	76	76	75	74	73	74	71	71	70	72	74	79	81	81	81	81	75		
2000	78	77	76	78	76	76	73	72	72	75	77	78	78	80	80	82	76		
2500	77	76	74	75	75	76	72	73	73	73	73	76	78	78	79	82	74		
3150	78	76	76	74	74	75	72	72	73	73	74	74	76	78	80	82	75		
4000	79	78	78	77	77	79	76	75	76	77	78	76	78	80	82	84	77		
5000	86	87	87	84	82	83	78	78	77	77	79	77	78	80	81	82	77		
6300	83	84	83	81	82	81	78	79	78	78	78	78	79	81	81	82	78		
8000	78	77	78	77	76	79	74	75	76	78	75	73	75	77	78	79	76		
10000	80	81	82	81	79	87	81	84	85	84	82	80	78	77	76	75	72		
OVERALL	95	95	95	94	92	92	89	89	90	90	91	92	94	95	96	96	93		

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 02
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25										63<	63<	63<	64<	65<	64<	64<	62<		
31.5		61<	62<	61<	61<	63<	62<	63<	61<	65<	65<	64<	66<	66<	66<	64<	62<		
40	70<	72<	69<	71<	70<	70<	72<	72<	70<	66<	68<	69<	69<	68<	69<	70<	68<		
50	77	70	77	77	76	76	81	82	81	79	77	75	77	76	74	75	75		
63	71	71	72	72	71	73	72	72	72	72	72	72	73	75	75	73	72		
80	75	76	75	75	74	73	72	71	70	71	72	74	75	76	75	75	71		
100	84	83	82	82	81	80	79	77	75	75	76	79	82	82	83	83	77		
125	84	83	83	83	79	79	76	74	73	75	77	78	81	83	81	82	74		
160	83	81	81	80	79	77	75	73	73	75	77	79	80	83	83	84	76		
200	84	83	83	82	81	79	76	74	73	77	78	82	83	85	85	86	76		
250	86	86	87	86	83	81	80	77	76	76	80	81	83	85	86	86	74		
315	85	84	84	84	82	80	80	77	75	76	80	81	83	84	85	84	74		
400	82	81	82	82	80	77	75	73	72	75	78	79	81	83	83	82	73		
500	80	80	81	81	79	77	75	73	72	73	76	77	80	82	81	80	74		
630	79	80	80	80	79	77	74	74	75	80	85	82	86	89	86	87	79		
800	77	78	79	78	78	76	74	74	74	76	79	80	82	82	81	81	74		
1000	77	78	77	77	77	75	75	74	74	78	78	80	82	81	80	80	73		
1250	77	77	76	76	76	73	73	73	74	78	78	80	82	81	79	80	73		
1600	76	76	76	76	77	74	73	73	73	76	78	79	81	79	78	80	73		
2000	78	77	78	78	77	75	75	75	76	78	79	79	80	81	80	81	74		
2500	77	77	76	77	76	74	74	74	76	79	78	78	80	81	79	82	72		
3150	75	77	77	77	78	74	74	73	75	78	78	78	80	80	80	82	72		
4000	79	78	78	79	79	76	77	76	78	82	80	80	81	82	80	82	73		
5000	89	90	90	90	88	86	84	83	80	84	84	84	83	81	80	82	73		
6300	82	82	82	83	83	80	80	79	81	86	80	89	86	84	80	81	73		
8000	77	77	76	78	77	76	76	76	77	79	79	79	79	77	76	78	70		
10000	81	82	82	83	82	81	81	81	81	81	78	77	76	74	72	72	65		
OVERALL	95	95	96	96	94	92	91	90	90	93	94	94	95	96	95	96	80		

< LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2 — MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENCINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA: 1.4
TEST 75-082-041
RUN 03
08 MAY 75
PAGE 2

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	76	76	75	76	75	76	76	77	82	88	83	82	81	81	81				
31.5	77	77	81	77	78	77	79	81	82	82	84	85	83	82	81				
40	82	83	84	82	81	81	83	83	83	84	85	86	84	85	83				
50	86	86	84	85	85	86	88	89	85	87	87	87	87	85	84				
63	106	103	102	103	100	105	109	112	110	110	110	109	106	102	99				
80	95	92	91	91	88	92	95	97	101	102	102	101	98	94	92				
100	93	93	92	91	89	89	88	88	88	88	98	98	92	95	88				
125	100	99	98	98	94	98	96	99	103	104	104	102	100	96	91				
160	95	95	94	93	98	88	88	89	95	94	96	95	94	94	87				
200	99	100	98	97	97	93	92	91	95	93	95	94	95	93	87				
250	101	99	99	99	96	93	91	92	94	93	94	94	94	92	86				
315	100	99	98	98	95	94	92	91	93	93	94	94	94	94	85				
400	97	97	97	96	94	93	93	91	92	92	92	94	94	94	84				
500	97	96	95	95	93	92	92	91	92	92	92	94	95	94	84				
630	94	94	94	93	92	98	91	90	93	91	92	93	94	93	84				
800	93	94	93	93	92	91	91	91	92	91	91	92	92	91	84				
1000	93	93	92	92	91	90	90	91	92	91	90	91	91	89	83				
1250	93	93	92	92	91	91	90	90	92	90	89	90	90	88	81				
1600	92	92	92	91	91	90	90	90	90	89	89	89	88	86	78				
2000	92	92	92	92	91	90	90	90	91	89	88	89	88	86	76				
2500	92	92	92	92	91	90	89	89	89	87	87	87	86	84	74				
3150	91	92	92	91	90	88	88	88	89	87	86	86	85	83	73				
4000	91	92	91	91	90	89	88	88	89	87	86	86	86	84	72				
5000	89	90	89	89	88	87	86	86	87	85	84	84	83	81	70				
6300	89	89	89	88	87	86	85	85	85	83	81	81	80	79	68				
8000	90	90	90	88	85	87	86	86	83	81	80	79	78	76					
10000	85	85	84	84	85	87	87	87	85	84	82	80	78	73					
OVERALL	111	110	109	109	106	107	110	112	112	112	112	111	109	106	102				

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

TABLE: 2

MEASURED SOUND PRESSURE LEVEL (DB)
1/3 OCTAVE BAND
DISTANCE = 75 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-041
RUN 84
08 MAY 75
PAGE 2

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
25	76	74	77	73	73	76	75	75	76	77	77	78	80	80	79				
31.5	78	78	76	77	77	79	79	79	76	79	79	78	82	81	81				
40	79	79	79	79	80	80	79	78	80	80	82	81	83	83	83				
50	83	83	82	82	81	81	82	82	85	84	87	87	85	84	82				
63	100	98	97	96	98	95	103	103	111	110	113	113	108	101	98				
80	92	90	90	89	91	90	94	95	103	102	105	105	100	94	91				
100	92	92	91	91	88	86	87	86	87	88	89	91	93	93	89				
125	97	97	96	95	98	96	93	91	99	104	106	102	101	96	91				
160	97	97	96	96	94	92	90	89	92	95	97	94	94	94	88				
200	101	101	100	98	97	94	92	94	95	95	95	95	96	94	88				
250	99	101	100	99	97	94	90	92	94	94	95	96	96	95	88				
315	99	100	100	100	98	95	92	92	93	94	95	95	98	95	89				
400	97	98	97	98	96	94	91	91	93	93	95	95	97	94	89				
500	96	96	96	96	94	93	92	91	92	94	94	96	96	94	88				
630	94	96	94	94	93	91	91	90	93	93	9	96	95	94	87				
800	94	95	94	93	93	92	91	91	93	92	94	94	94	93	86				
1000	93	94	93	92	92	91	90	90	92	92	94	94	93	91	84				
1250	92	93	93	92	92	91	90	90	91	91	93	93	92	90	82				
1600	92	92	91	91	92	90	89	89	90	90	91	91	91	88	80				
2000	91	92	92	92	92	90	89	89	90	89	91	91	90	88	79				
2500	92	92	91	92	91	90	89	88	89	87	89	89	88	86	77				
3150	91	91	91	90	90	88	87	87	88	87	88	88	87	85	76				
4000	90	91	90	90	90	88	87	87	88	88	88	88	87	85	76				
5000	88	89	88	88	88	86	85	84	87	85	86	86	85	83	74				
6300	86	88	87	87	87	85	84	83	84	83	83	83	82	80	71				
8000	89	90	89	89	88	86	86	84	84	82	82	81	80	78	69				
10000	82	83	82	83	83	82	82	82	83	82	81	79	77	74	65				
OVERALL	109	109	108	108	107	105	106	106	112	112	115	114	111	107	102				

LEVEL CORRECTED TO REMOVE BACKGROUND/ELECTRONIC NOISE.

FIGURE: NORMALIZED FARFIELD NOISE LEVELS

2

DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 01
08 MAY 75
PAGE 6

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

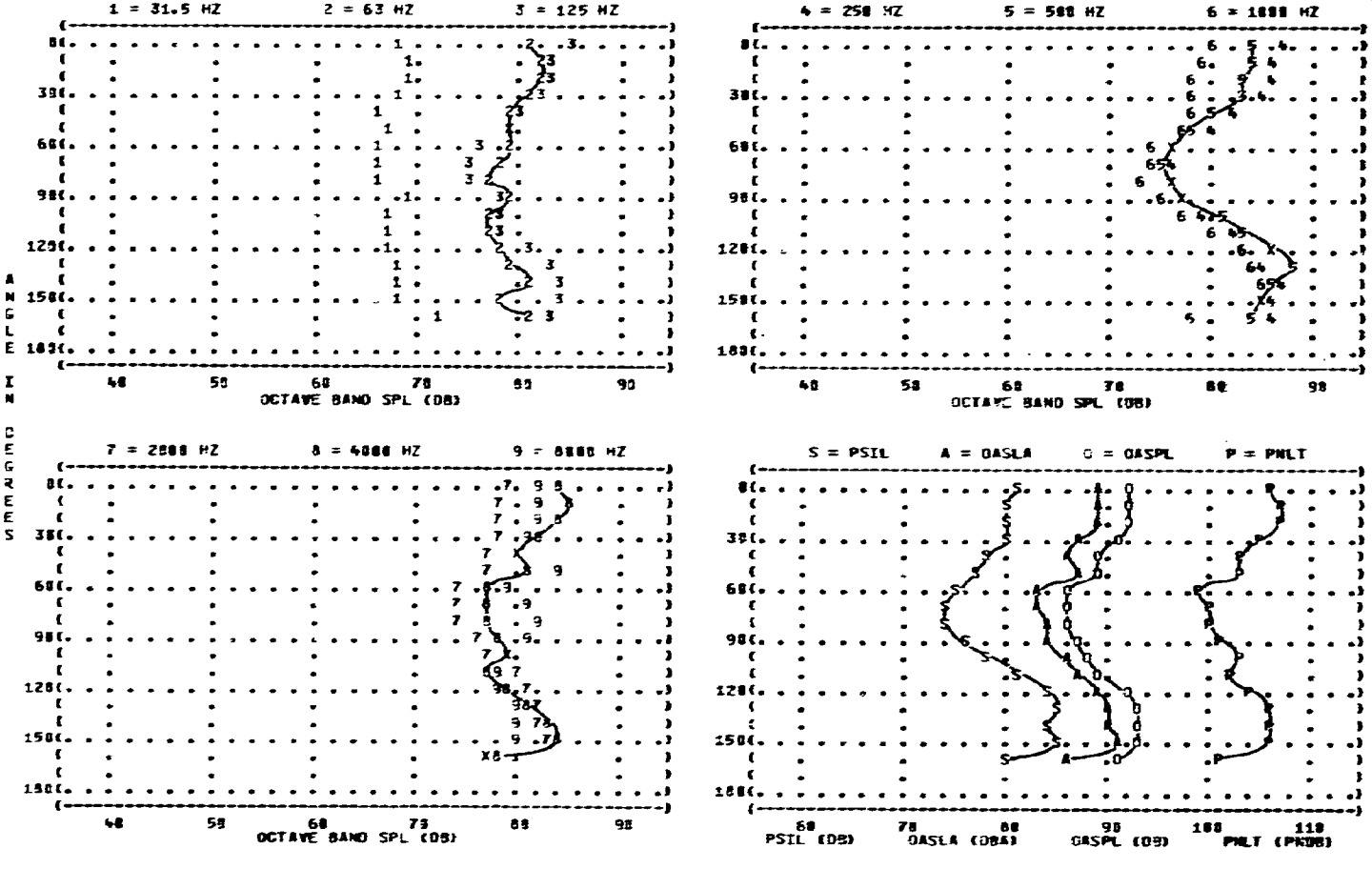


FIGURE 2 NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-062-041
RUN 02
08 MAY 75
PAGE 6

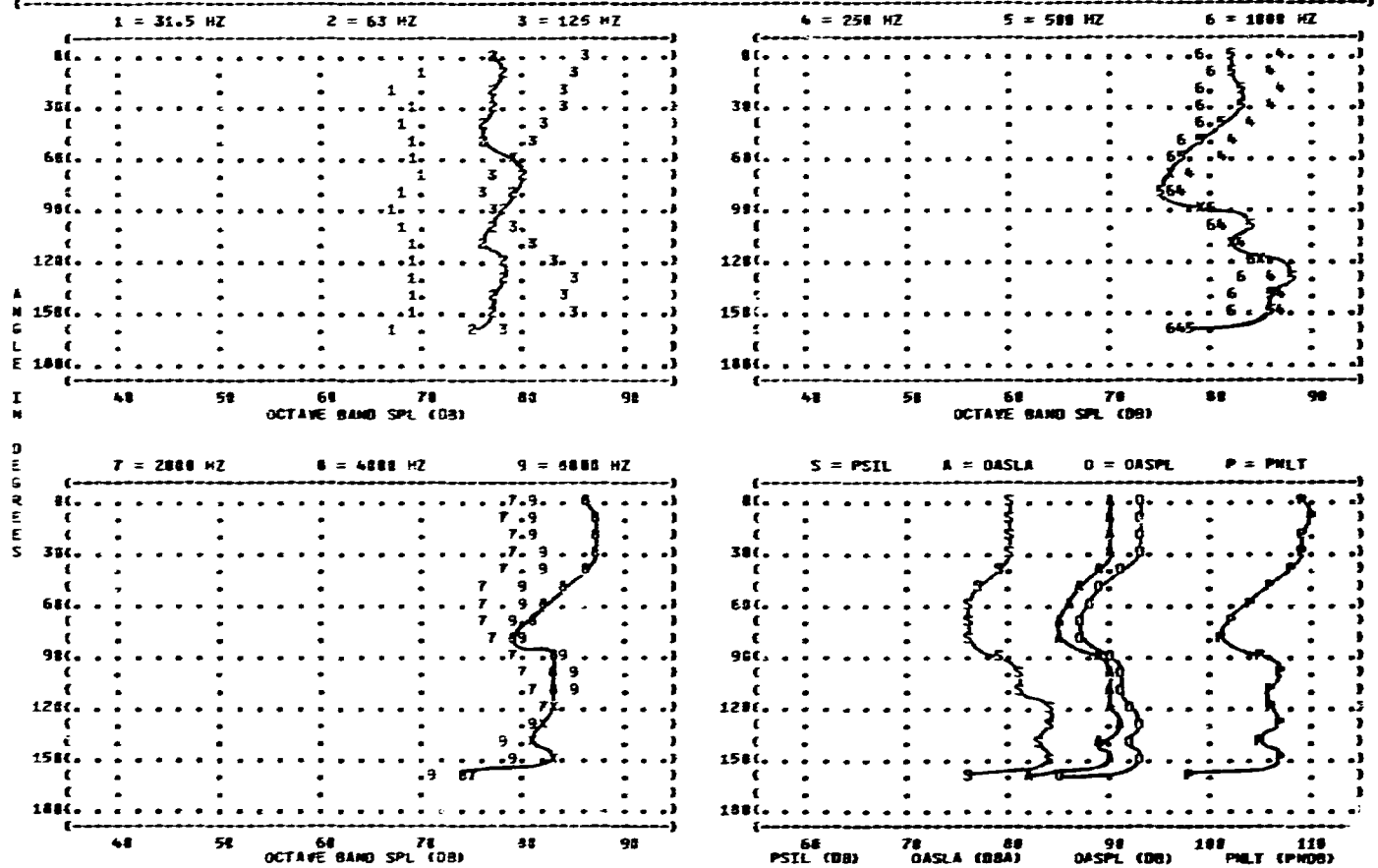


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

DISTANCE = 100 METERS

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-841
RUN 83
08 MAY 75
PAGE 6

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

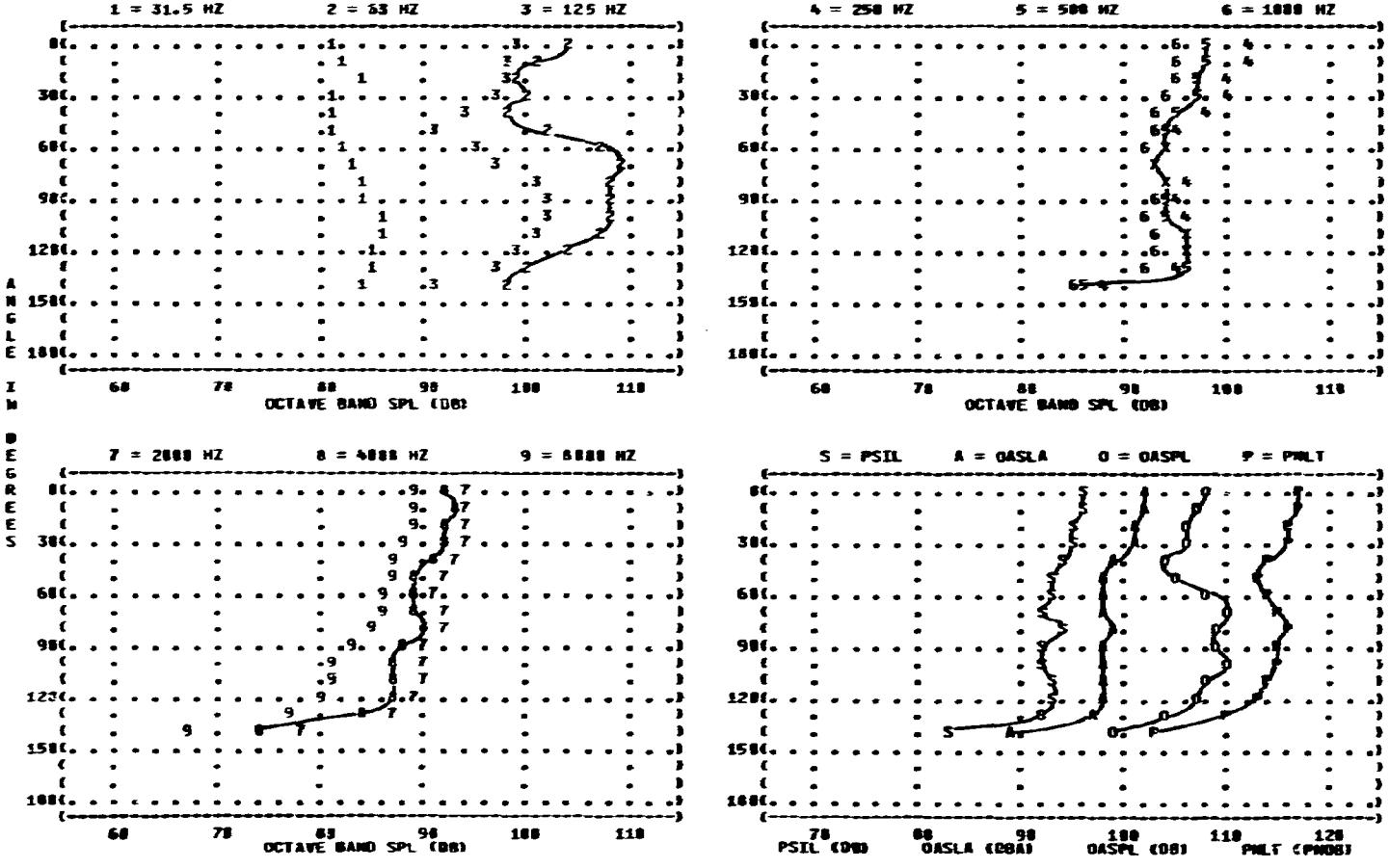


FIGURE: NORMALIZED FARFIELD NOISE LEVELS

2

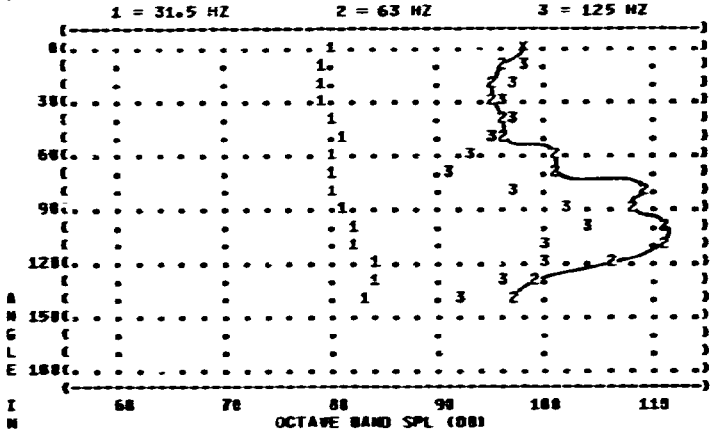
DISTANCE = 100 METERS

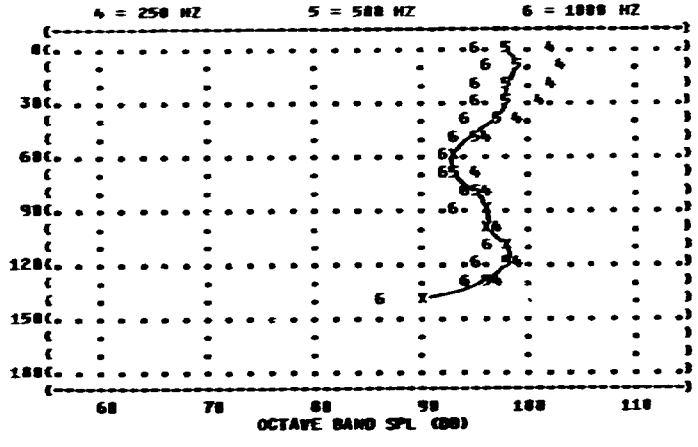
NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

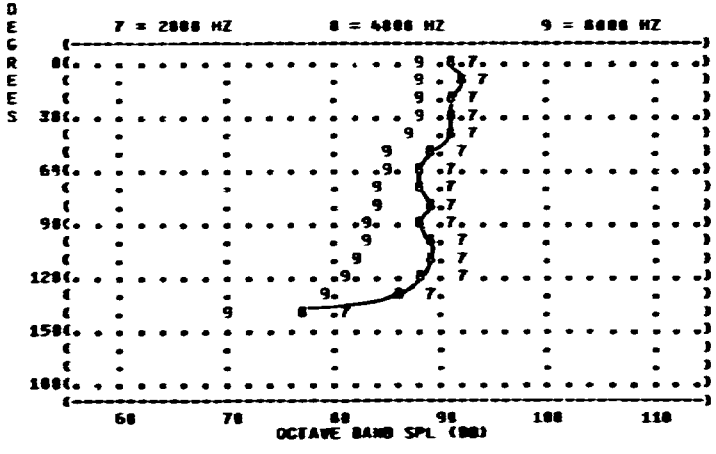
OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 6







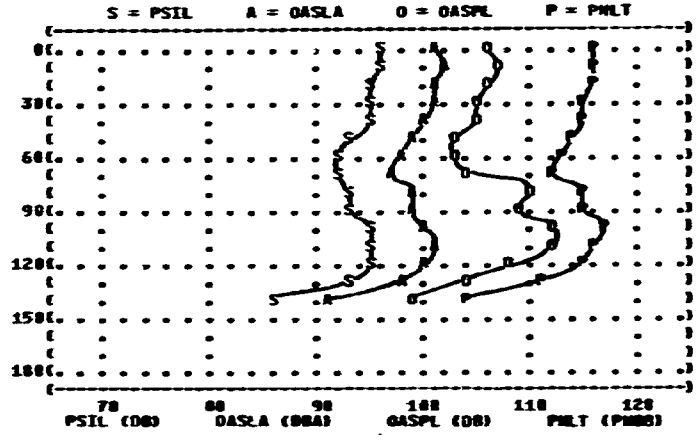


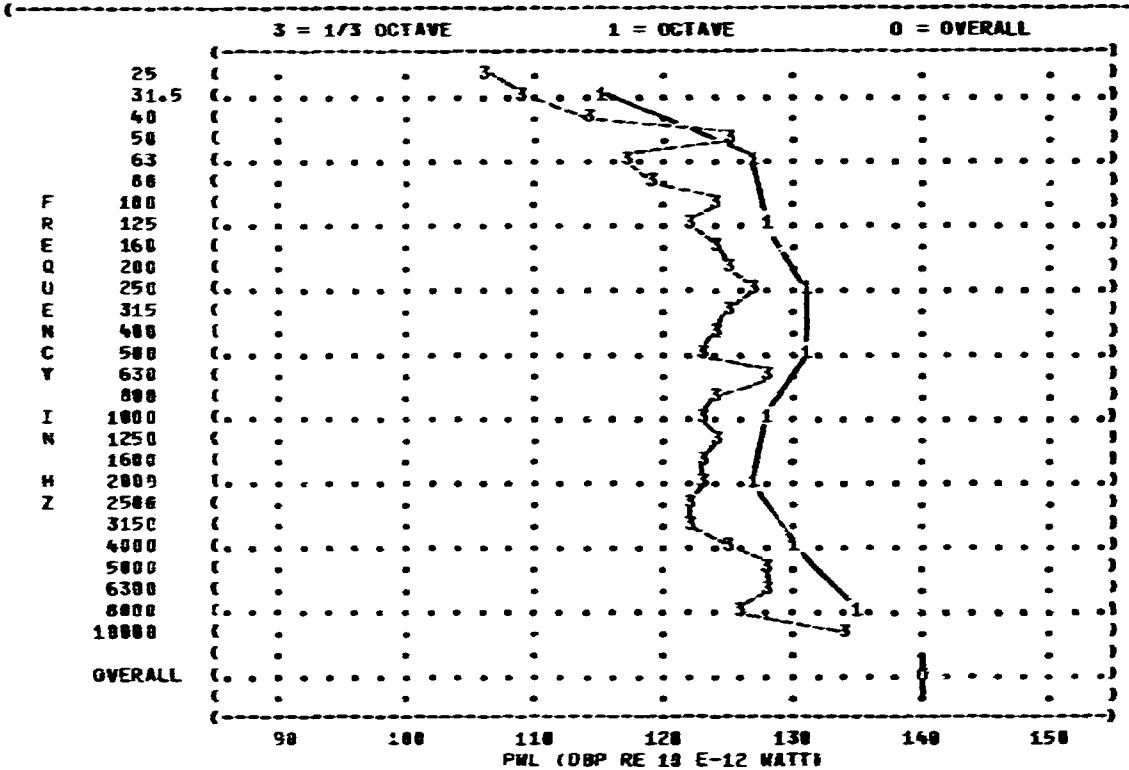
FIGURE: 3 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
ONEGA 1.4
TEST 75-802-841
RUN 81
06 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %



1/3 OCTAVE	PWL OCTAVE
105.7	
108.8	115.4
113.7	
125.2	
117.3	126.7
118.9	
123.8	
122.2	128.1
123.7	
125.1	
126.9	130.6
125.3	
124.8	
122.9	130.6
120.5	
123.9	
122.9	128.3
123.8	
122.7	
123.1	127.4
122.0	
122.3	
125.3	130.4
127.8	
128.1	
126.8	135.3
133.6	
	139.6

FIGURE: ACOUSTIC POWER LEVEL (PWL)

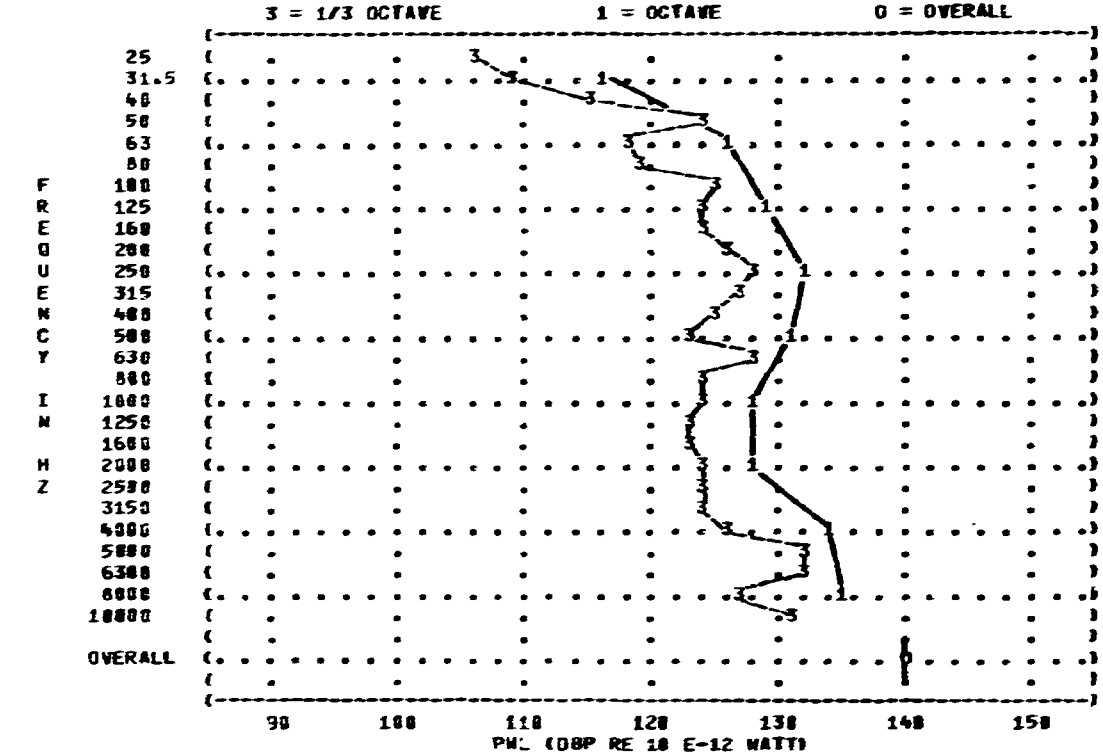
3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-841
RUN 82
08 MAY 75
PAGE 3



	PWL	
	1/3 OCTAVE	OCTAVE
25	106.1	
31.5	109.8	116.3
40	114.9	
50	123.5	
63	117.7	125.5
80	118.6	
100	125.1	
125	124.4	129.4
160	124.3	
200	126.3	
250	127.5	131.6
315	126.5	
400	124.5	
500	123.3	130.7
630	128.4	
800	123.9	
1000	123.5	128.4
1250	123.3	
1600	122.9	
2000	124.8	128.4
2500	124.8	
3150	124.2	
4000	126.4	133.6
5000	132.1	
6300	132.5	
8000	127.8	135.5
10000	131.8	
OVERALL	140.5	

FIGURE: ACOUSTIC POWER LEVEL (PWL)

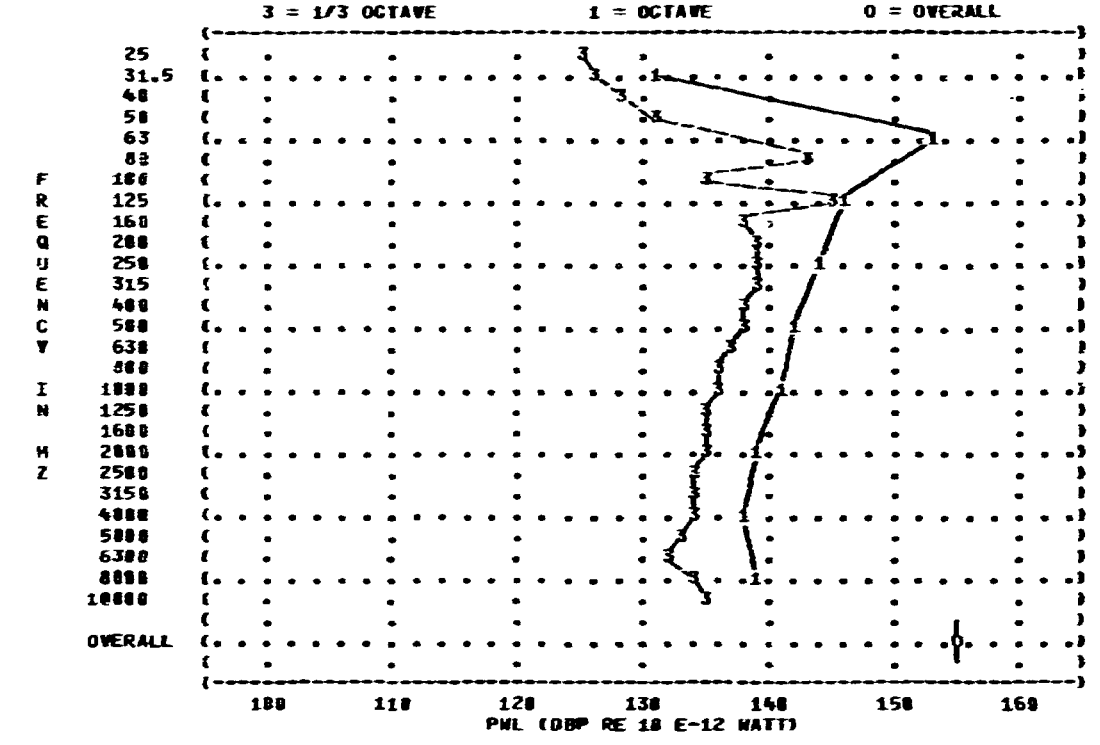
3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-841
RUN 83
08 MAY 75
PAGE 3



	PWL	
	1/3 OCTAVE	OCTAVE
25	124.7	
31.5	126.3	131.5
40	128.3	
50	131.2	
63	152.8	153.3
80	143.4	
100	135.8	
125	145.2	146.3
160	137.8	
200	139.1	
250	139.1	143.8
315	138.9	
400	138.1	
500	137.8	142.5
630	137.1	
800	136.5	
1000	135.8	140.7
1250	135.3	
1600	134.7	
2000	134.9	139.4
2500	134.3	
3150	133.7	
4000	134.4	138.4
5000	132.6	
6300	132.2	
8000	133.6	138.6
10000	135.2	
OVERALL		155.2

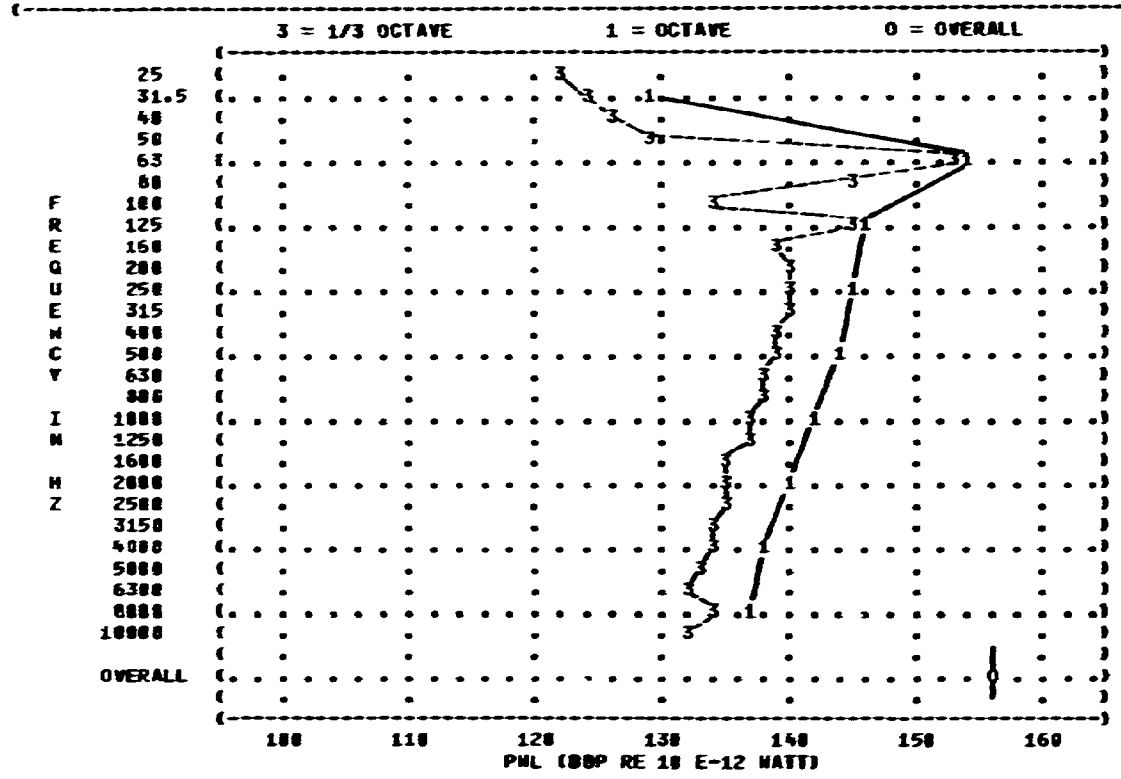
FIGURE: 3 ACOUSTIC POWER LEVEL (PWL)

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-841
RUN 84
08 MAY 75
PAGE 3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %



FREQUENCY	PWL 1/3 OCTAVE	PWL OCTAVE
25	121.9	
31.5	123.8	128.8
40	125.7	
50	129.8	
63	152.8	153.5
80	145.8	
100	134.3	
125	145.2	146.3
160	138.7	
200	148.1	
250	148.1	145.8
315	148.5	
400	139.4	
500	138.9	143.6
630	138.2	
800	137.7	
1000	137.8	141.9
1250	136.6	
1600	135.4	
2000	135.5	139.9
2500	134.6	
3150	133.8	
4000	134.3	138.4
5000	132.6	
6300	131.6	
8000	133.7	137.4
10000	132.2	
OVERALL		155.6

TABLE: DIRECTIVITY INDEX (DB)

3

IDENTIFICATION:

OMEGA 1.4
TEST 75-882-841
RUN 01.

08 MAY 75

PAGE 4

NOISE SOURCE/SUBJECT:

P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:

IDLE POWER
17C ENGINE SHP
INBOARD ENGINES

METEOROLOGY:

TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25									-8	1	2	3	2	2	2	4	6		
31.5	-4	-2	-2	-2	-1	-2	-8	-1	1	1	0	1	1	0	-1	-1	4		
40	2	3	3	2	-1	1	-1	-1	-2	2	-2	-2	-1	-0	0	0	5		
50	3	4	4	3	1	1	1	0	-1	-1	-3	-3	-3	-2	2	-1	2		
63	-1	-1	0	-1	-3	-1	-1	-1	-2	1	0	1	1	2	2	-1	2		
80	0	-1	-1	-1	-4	-2	-4	-6	-5	4	-1	0	?	4	2	0	0		
100	5	3	5	3	0	1	-5	-6	-8	-6	-2	-3	0	2	4	4	3		
125	3	3	2	2	-2	-3	-5	-5	-5	-3	-1	-0	3	2	2	4	1		
160	4	3	2	1	-0	-3	-4	-5	-4	-0	-3	-2	-0	3	5	4	3		
200	4	3	3	1	-1	-3	-6	-7	-7	-5	-4	-1	3	3	4	4	2		
250	5	4	3	3	-1	-3	-8	-7	-8	-6	-3	-1	3	2	4	3	2		
315	5	4	4	3	0	-2	-7	-6	-6	-6	-3	-1	2	3	3	2	5		
400	4	3	3	3	-1	-3	-5	-7	-7	-7	-3	-2	2	4	2	2	4		
500	3	3	3	3	0	-1	-4	-5	-6	-7	-4	-2	2	4	3	2	4		
630	-1	-1	-4	-4	-4	-6	-8	-9	-7	-5	-0	2	5	6	4	2	-3		
800	-1	-1	-1	-1	-2	-3	-6	-6	-7	-5	-4	-0	3	4	5	6	-2		
1000	0	-0	-1	-1	-1	-3	-5	-6	-7	-5	-3	-1	3	4	5	6	-2		
1250	-1	-2	-4	-4	-4	-5	-7	-8	-9	-6	-4	2	4	5	4	4	-2		
1600	-1	-1	-2	-3	-4	-3	-6	-6	-7	-5	-3	2	4	4	4	4	-2		
2000	1	-0	1	0	-2	-1	-5	-5	-5	-2	-1	1	1	3	3	5	-1		
2500	1	-0	-2	-1	-1	-0	-4	-3	-3	-3	-3	-0	2	2	3	6	-2		
3150	2	0	-0	-1	-2	-0	-4	-4	-2	-3	-2	-2	0	3	5	6	-1		
4000	0	-1	-1	-1	-2	1	-2	-3	-2	-1	0	-2	-0	2	4	5	-1		
5000	6	7	6	4	1	2	-3	-3	-3	-4	-2	-3	-3	-0	1	2	-4		
6300	3	4	3	1	2	1	-2	-1	-2	-2	-2	-2	-1	1	1	2	-2		
8000	1	1	2	1	-0	2	-2	-1	-0	1	-2	-3	-1	1	2	3	-1		
10000	-2	-1	-0	-1	-3	5	-1	2	3	2	0	-2	-4	-5	-6	-7	-10		
OCTAVE																			
31.5	0	2	1	1	-2	-0	-2	-1	-1	2	-1	-0	-0	0	0	1	5		
63	2	3	3	2	0	1	0	-0	-2	0	-2	-2	-1	0	2	-1	2		
125	4	3	3	2	-0	-1	-4	-5	-5	-2	-2	-2	1	2	4	4	3		
250	5	4	3	2	-1	-3	-7	-7	-7	-6	-3	-1	3	3	4	3	3		
500	1	1	0	0	-2	-4	-6	-8	-7	-6	-1	0	4	5	3	2	1		
1000	-1	-1	-2	-2	-2	-3	-6	-7	-7	-5	-3	0	3	4	5	5	-2		
2000	0	-0	-1	-1	-2	-1	-5	-5	-5	-3	-2	1	2	3	4	5	-2		
4000	4	5	4	2	0	1	-3	-3	-3	-3	-1	-3	-1	1	3	4	-2		
8000	1	1	2	0	-0	4	-2	1	2	1	-1	-2	-2	-1	-1	-0	-4		
OVERALL	3	2	2	1	-1	-0	-4	-3	-3	-3	-2	-1	2	3	3	3	1		

TABLE: DIRECTIVITY INDEX (DB)

3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-041
RUN 02
08 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25										3	2	3	3	4	3	3	1		
31.5		-2	-1	-2	-2	-1	-2	-1	-2	1	1	0	2	2	3	-0	-1		
40	1	3	-1	1	0	1	2	2	1	-3	-2	-0	-1	-1	-0	0	-2		
50	-1	-1	-2	-2	-2	-3	2	4	3	1	-1	-3	-1	-2	-5	-3	-3		
63	-1	-1	-0	-1	-1	0	-0	-0	-1	-0	-0	-0	1	2	3	0	-0		
80	1	3	1	2	1	-0	-1	-2	-3	-3	-1	1	2	2	2	2	-3		
100	4	3	2	2	1	-0	-1	-3	-5	-5	-4	-1	2	2	3	3	-3		
125	5	4	4	4	-0	-0	-4	-6	-6	-4	-3	-1	2	3	2	3	-5		
160	4	2	2	1	-0	-2	-4	-6	-6	-4	-2	-3	1	4	4	5	-3		
200	3	2	2	1	-0	-2	-5	-7	-8	-4	-3	1	2	4	4	5	-5		
250	4	3	5	3	0	-1	-2	-5	-6	-6	-3	-1	1	2	4	4	-0		
315	3	2	3	3	1	-1	-2	-5	-6	-5	-1	-1	2	2	4	2	-7		
400	3	2	3	3	0	-2	-4	-6	-7	-5	-2	-0	2	4	4	2	-6		
500	2	2	3	3	1	-1	-3	-5	-6	-5	-2	-1	2	4	3	2	-4		
630	-4	-3	-3	-3	-4	-6	-9	-9	-8	-3	2	-1	3	6	3	4	-4		
800	-1	-0	0	-0	-0	-3	-4	-5	-5	-2	1	1	3	4	2	2	-4		
1000	-1	-0	-1	-1	-1	-3	-3	-4	-4	0	-0	2	4	3	2	2	-5		
1250	-1	-1	-2	-2	-2	-4	-5	-5	-4	-0	-0	2	4	3	1	3	-5		
1600	-2	-2	-1	-1	-1	-4	-4	-5	-4	-1	0	2	4	2	1	3	-4		
2000	0	-1	0	-0	-1	-3	-3	-3	-2	-0	1	1	2	3	2	3	-4		
2500	-0	-1	-2	-1	-2	-4	-4	-4	-2	1	1	1	2	3	2	5	-6		
3150	0	-1	-1	-1	0	-4	-4	-4	-3	0	0	0	2	2	2	4	-6		
4000	-1	-1	-2	-0	-1	-3	-2	-4	-2	2	1	0	2	2	1	3	-7		
5000	4	5	5	5	4	2	-0	-2	-5	-1	-1	-1	-2	-4	-5	-3	-12		
6300	-3	-2	-2	-1	-1	-4	-4	-5	-4	2	4	4	2	-0	-4	-3	-12		
8000	-0	-1	-1	0	-0	-1	-1	-1	-0	2	1	1	1	-0	-2	0	-0		
10000	1	3	3	3	2	2	1	1	2	1	-2	-3	-4	-6	-7	-7	-14		
OCTAVE																			
31.5		2	-1	0	-1	0	1	1	-0	-1	-1	0	0	0	1	0	-1		
63	-0	0	-1	-1	-1	-1	2	3	2	0	-1	-2	-0	-0	-1	-1	-3		
125	4	3	3	3	0	-1	-3	-5	-6	-4	-3	-1	2	3	3	4	-4		
250	3	3	4	3	0	-1	-3	-6	-7	-5	-2	-0	2	3	4	4	-7		
500	-0	-0	1	0	-1	-4	-6	-7	-7	-4	1	-1	2	5	3	3	-4		
1000	-1	-0	-1	-1	-1	-3	-4	-5	-4	-1	0	2	4	3	2	2	-5		
2000	-1	-1	-1	-1	-1	-4	-4	-4	-3	-0	0	1	3	3	2	4	-5		
4000	3	4	4	4	3	0	-1	-3	-4	0	-0	-1	-0	-1	-2	0	-9		
8000	-1	-0	-0	1	-0	-2	-2	-2	-1	2	3	3	1	-1	-4	-3	-11		
OVERALL	2	2	2	2	0	-1	-2	-3	-4	-1	0	1	2	2	1	2	-6		

TABLE: DIRECTIVITY INDEX (DB)

3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-16 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-841
RUN 03
08 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-3	-4	-3	-5	-4	-4	-3	-2	2	0	4	2	2	1	2				
31.5	-5	-4	-1	-4	-3	-4	-2	-1	1	0	3	3	1	1	-0				
40	-2	-0	1	-2	-2	-2	-1	0	-0	1	1	2	1	1	-1				
50	0	-0	-2	-1	-1	-0	2	3	-1	1	1	1	1	-1	-2				
63	-2	-4	-6	-5	-0	-3	1	4	2	2	2	1	-2	-6	-0				
80	-4	-6	-7	-0	-10	-7	-3	-1	3	4	4	3	-0	-4	-6				
100	4	3	2	2	-1	-0	-2	-2	-2	-2	0	-0	3	5	-1				
125	-0	-1	-2	-2	-6	-10	-4	-1	3	4	4	2	-0	-4	-9				
160	3	3	1	1	-2	-4	-4	-4	2	2	3	2	1	1	-6				
200	5	6	4	3	3	-1	-2	-3	1	-1	1	0	1	-1	-7				
250	7	5	5	5	2	-1	-3	-2	-0	-1	-0	0	0	-2	-0				
315	6	6	5	4	1	0	-2	-3	-0	-1	0	-0	-0	1	-9				
400	5	4	4	3	1	0	-0	-2	-0	-0	-1	1	1	1	-9				
500	4	4	2	3	0	-0	-1	-1	-0	-0	-1	2	2	2	-9				
630	2	3	2	1	-0	-2	-1	-1	1	-0	0	1	3	2	-7				
800	2	3	2	2	1	-0	-0	0	1	0	0	1	1	0	-7				
1000	2	3	2	2	1	0	0	1	2	1	0	0	1	-1	-0				
1250	3	3	3	2	1	1	0	0	2	-0	-1	0	0	-2	-9				
1600	3	3	3	2	2	1	1	1	1	-0	-0	0	-1	-3	-11				
2000	3	3	3	3	2	1	1	1	2	-0	-1	-0	-1	-3	-13				
2500	4	4	4	4	3	2	1	1	1	-1	-2	-1	-2	-4	-14				
3150	4	4	4	3	3	1	1	1	2	-0	-1	-1	-2	-4	-14				
4000	4	4	4	3	2	1	1	1	2	-0	-1	-1	-1	-4	-15				
5000	4	5	4	4	2	1	1	0	2	-0	-1	-1	-2	-4	-15				
6300	5	5	5	4	3	2	1	1	1	-1	-3	-3	-4	-5	-16				
8000	6	6	6	4	4	3	2	2	-1	-3	-4	-5	-6	-8	-19				
10000	1	1	1	0	2	4	3	3	1	1	-2	-4	-5	-10	-20				
OCTAVE																			
31.5	-3	-2	-0	-3	-3	-3	-1	-0	1	1	2	3	1	1	0				
63	-2	-4	-6	-5	-0	-3	1	4	2	3	3	1	-1	-6	-0				
125	1	-0	-1	-1	-5	-7	-4	-2	3	3	4	2	0	-1	-7				
250	6	6	5	4	2	-1	-2	-3	0	-1	0	0	0	-1	-0				
500	4	4	3	3	1	-0	-1	-1	0	-0	-0	1	2	2	-0				
1000	3	3	2	2	1	0	0	0	2	0	-0	0	1	-1	-0				
2000	3	3	3	3	2	1	1	1	2	-1	-1	-0	-1	-3	-12				
4000	4	4	4	3	2	1	1	1	2	-0	-1	-1	-2	-4	-15				
8000	4	5	4	3	3	3	2	2	1	-1	-3	-4	-5	-7	-18				
OVERALL	1	-0	-1	-1	-3	-3	0	3	2	2	2	1	-1	-3	-0				

TABLE: DIRECTIVITY INDEX (DB)

3

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 17 C
BAR PRESS = .767 M HG
REL HUMID = 67 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-B02-041
RUN 04
08 MAY 75
PAGE 4

FREQ (HZ)	ANGLE (DEGREES) 0	10	20	30	40	50	60	70	80	90	100	110	120	130	140	150	160	170	180
1/3 OCTAVE																			
25	-3	-3	0	-3	-4	-1	-2	-2	-1	0	-0	2	4	3	2				
31.5	-1	-1	-2	-1	-1	0	0	0	-3	0	0	-1	3	3	3				
40	-1	-2	-2	-2	-1	-0	-2	-2	-1	-0	1	1	3	3	2				
50	-1	-1	-1	-1	-3	-3	-2	-2	1	0	3	3	2	0	-1				
63	-8	-16	-11	-11	-10	-10	-5	-5	3	2	5	5	0	-7	-9				
80	-8	-10	-10	-11	-9	-10	-6	-5	3	2	5	5	0	-6	-9				
100	3	2	2	1	-1	-3	-2	-3	-2	-2	-0	1	4	3	-0				
125	-3	-3	-4	-5	-2	-4	-7	-9	-1	4	6	2	1	-4	-9				
160	4	4	2	2	1	-2	-3	-4	-2	2	4	0	1	0	-5				
200	6	6	5	3	2	-1	-3	-1	0	0	0	0	1	-1	-7				
250	4	6	5	4	2	-1	-5	-3	-1	-1	1	2	1	0	-7				
315	4	5	4	5	3	-0	-3	-3	-2	-1	-0	-0	2	-0	-6				
400	3	4	3	4	2	-0	-3	-3	-1	-1	1	1	3	0	-5				
500	3	3	2	2	0	-0	-2	-2	-1	1	1	3	2	0	-5				
630	1	3	1	1	-0	-2	-2	-3	0	-0	1	3	2	1	-6				
800	2	2	2	1	0	-1	-2	-1	1	-1	2	2	2	1	-6				
1000	2	2	1	1	1	-1	-1	-1	0	0	2	2	1	-1	-8				
1250	1	2	2	1	1	-0	-1	-1	-0	0	2	2	1	-1	-9				
1600	2	3	2	2	2	0	-0	-0	0	0	2	1	1	-1	-9				
2000	2	2	2	2	2	0	-0	-1	1	-0	2	2	0	-2	-10				
2500	3	4	3	3	3	1	1	-0	0	-1	0	1	-0	-2	-12				
3150	3	4	3	3	3	1	-0	-1	1	-0	1	0	-0	-2	-11				
4000	3	4	3	3	2	1	-0	-1	1	0	1	1	-0	-2	-11				
5000	3	4	3	3	3	1	-0	-1	1	0	1	0	-0	-2	-11				
6300	4	4	4	4	3	1	0	-1	1	-0	-1	-1	-2	-3	-12				
8000	5	6	5	5	4	2	2	0	-0	-2	-2	-3	-4	-6	-15				
10000	2	3	2	2	2	1	2	1	2	1	0	-1	-4	-7	-16				
OCTAVE																			
31.5	-1	-2	-2	-2	-1	-0	-1	-1	-1	-0	1	1	3	3	2				
63	-8	-9	-11	-11	-10	-10	-5	-5	3	2	5	5	0	-6	-9				
125	-0	-0	-2	-2	-1	-3	-5	-7	-1	3	6	1	1	-7	-7				
250	5	6	5	4	2	-1	-4	-3	-1	-1	0	1	2	-0	-7				
500	2	3	2	3	1	-1	-2	-3	-1	-0	1	2	2	0	-5				
1000	2	2	1	1	1	-1	-1	-1	0	-0	2	2	1	-0	-7				
2000	2	3	2	2	2	0	-0	-1	0	-0	1	1	1	-2	-10				
4000	3	4	3	3	3	1	-0	-1	1	0	1	0	-0	-2	-11				
8000	4	5	4	4	3	2	1	0	1	-1	-1	-2	-3	-5	-14				
OVERALL	-1	-1	-2	-2	-3	-5	-4	-4	2	2	4	4	1	-3	-8				

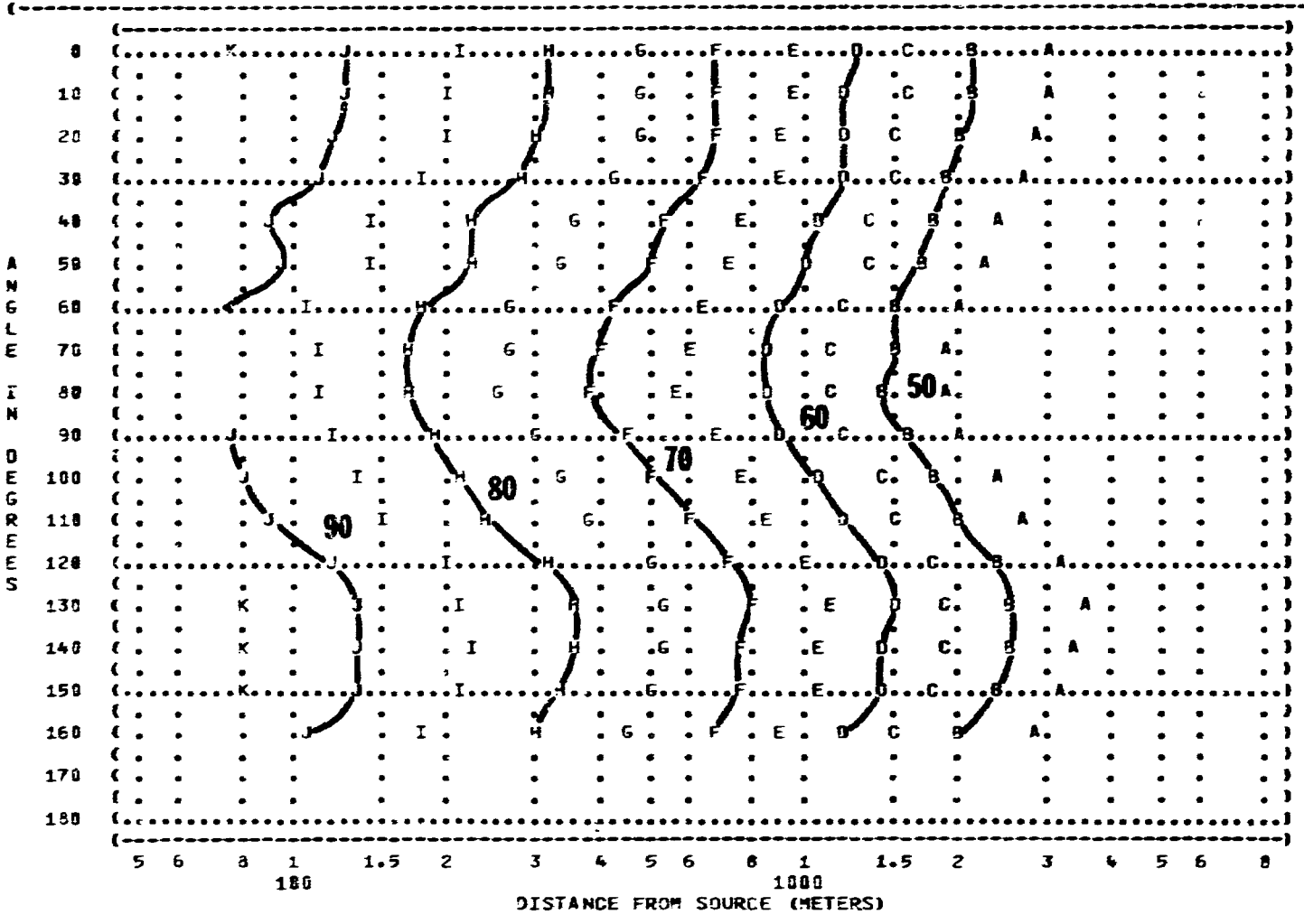
FIGURE 4 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
ONEGA 1.4
TEST 75-882-841
RUN 81
08 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-16 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 78 %



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95

FIGURE 4 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

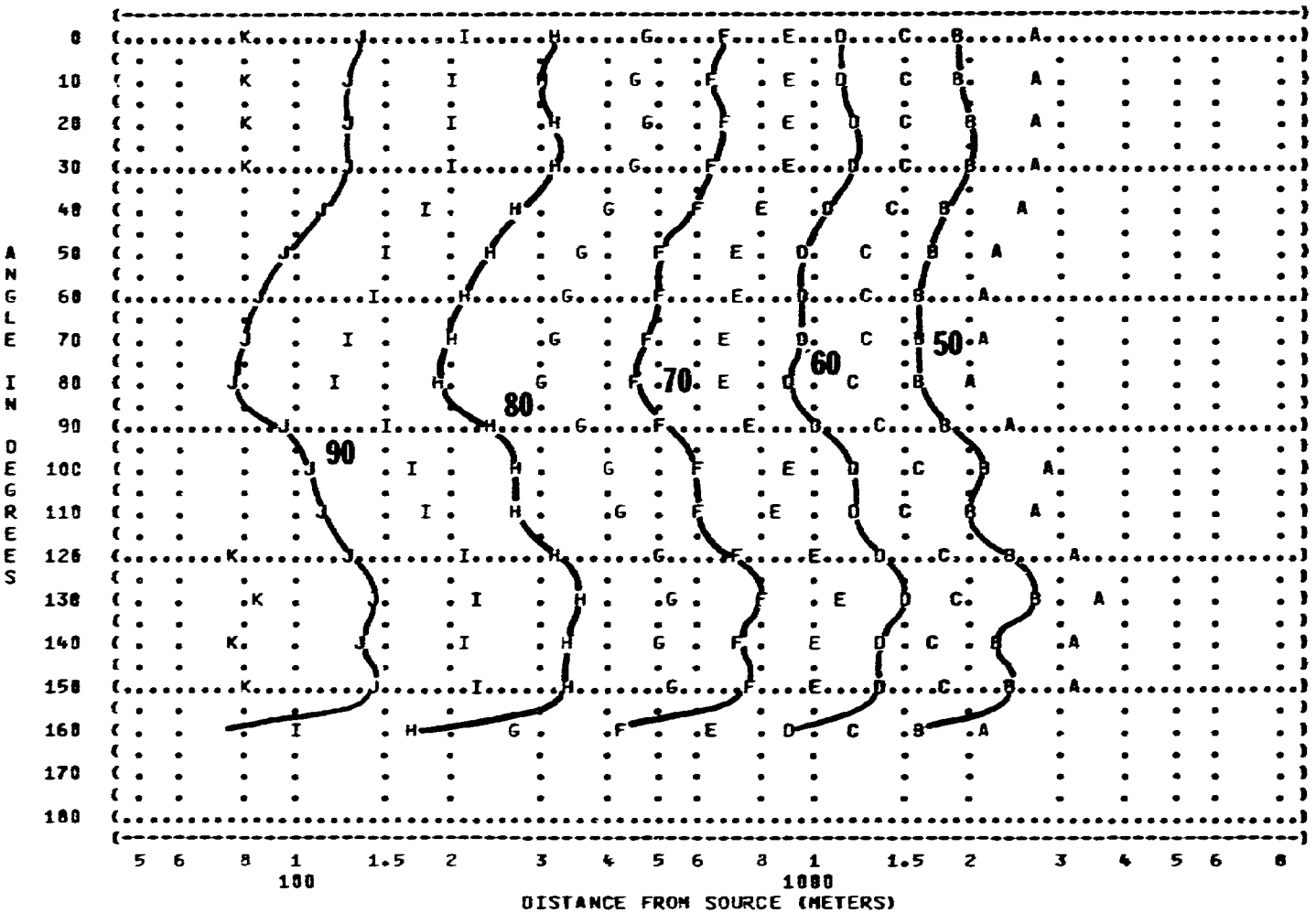


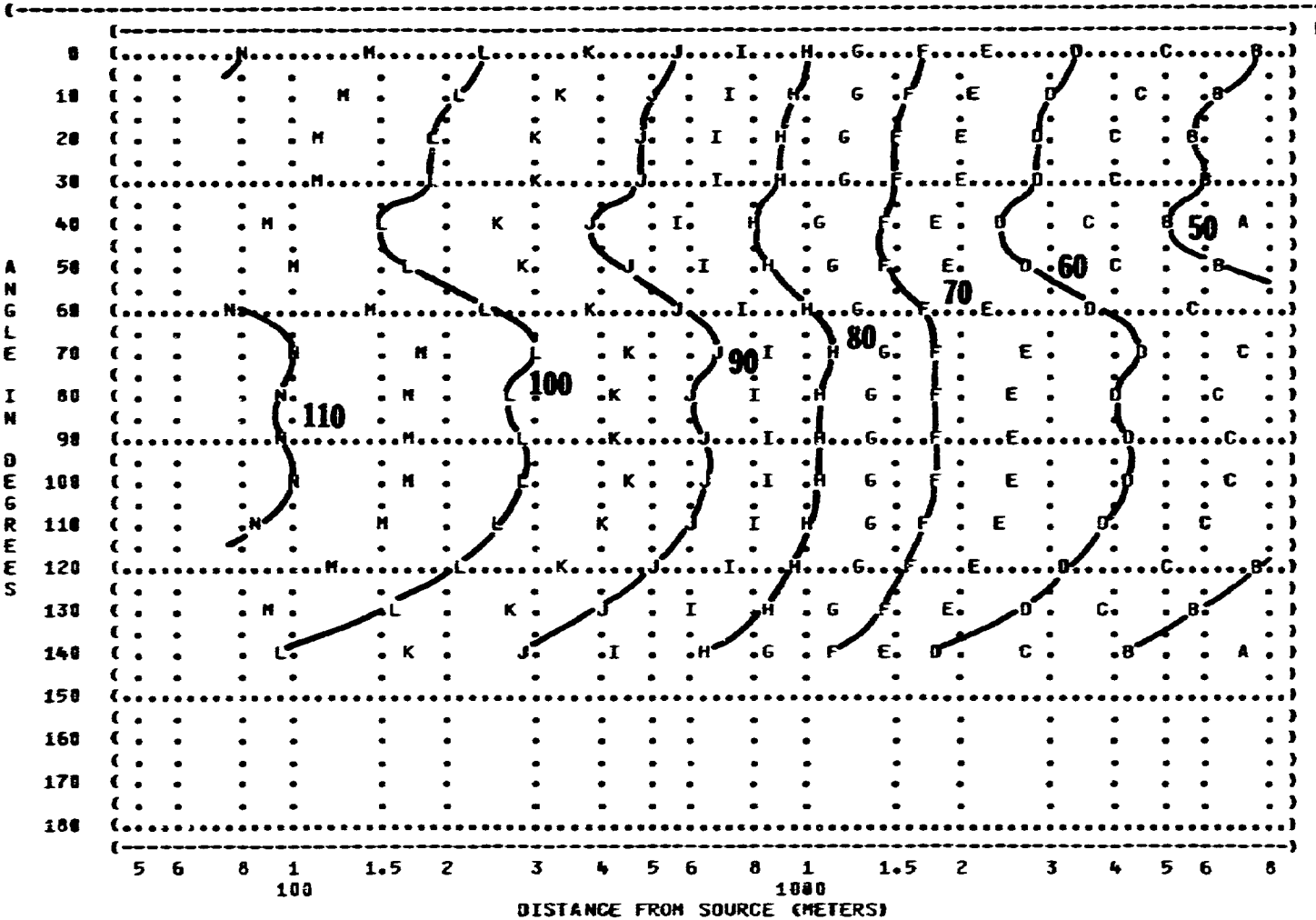
FIGURE 4 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 13



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

FIGURE 4 OVERALL SOUND PRESSURE LEVEL (OASPL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 13

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATIONS:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

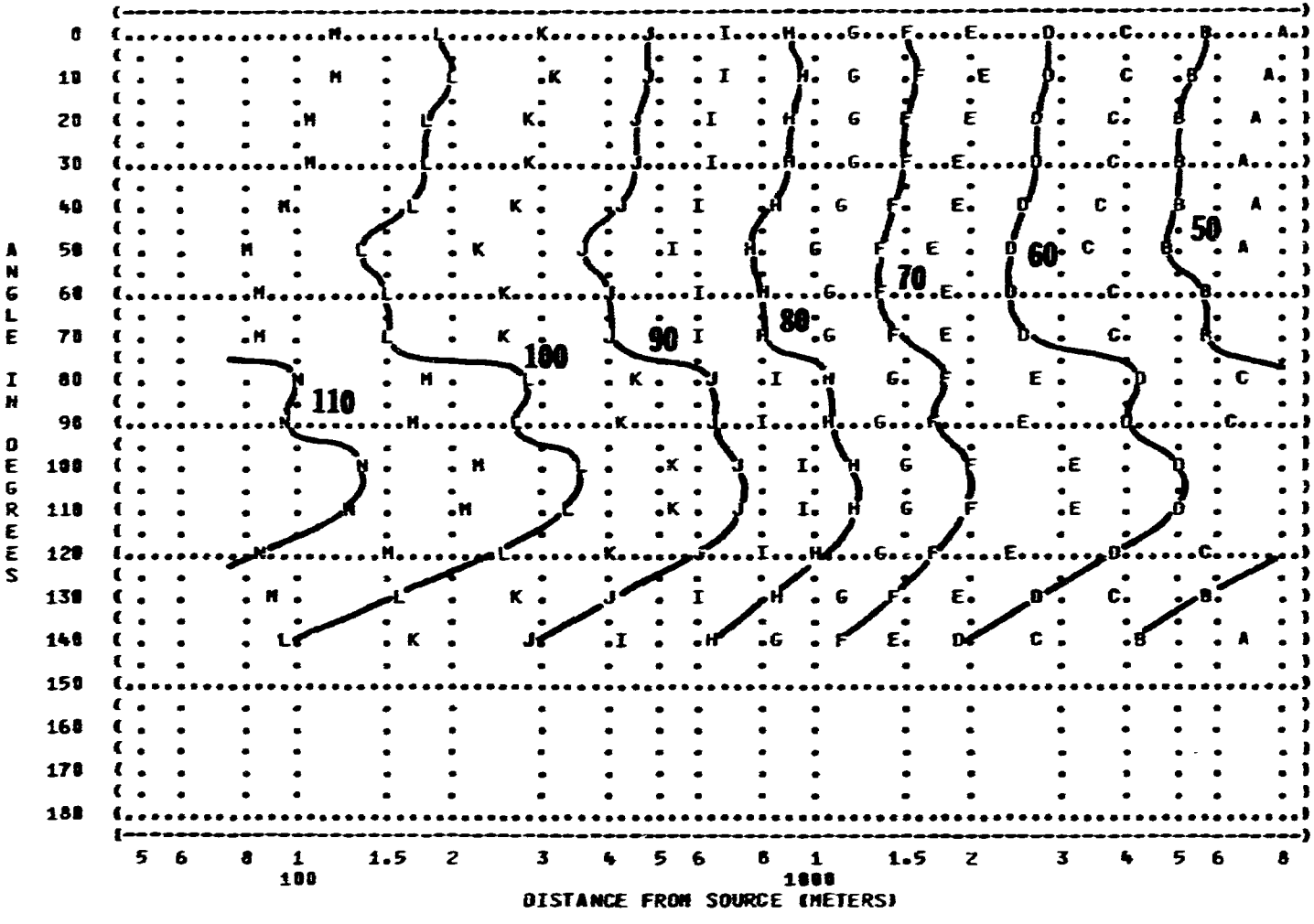


FIGURE 5 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 01
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	OBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95

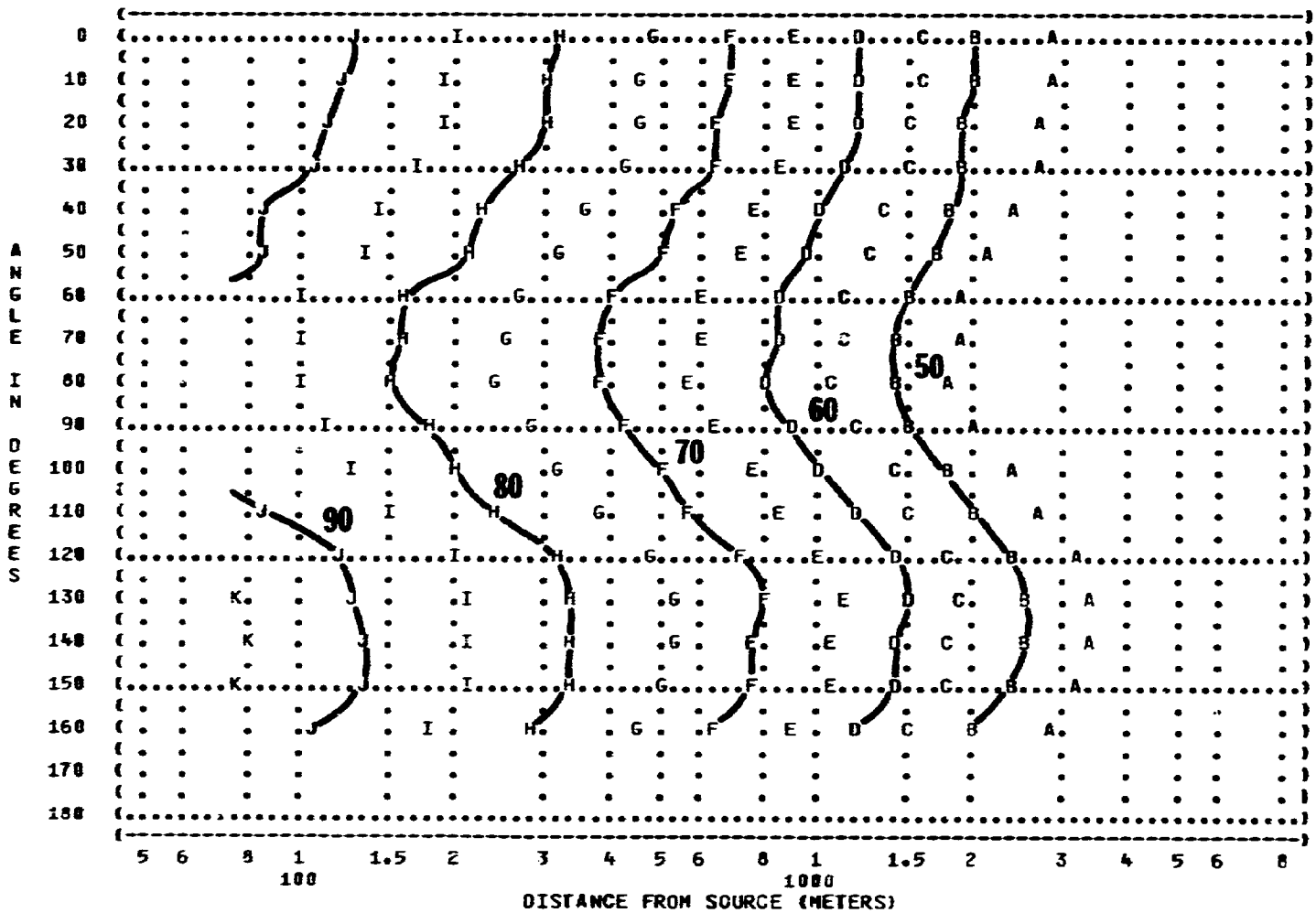


FIGURE 5 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATIONS:
OMEGA 1.4
TEST 75-082-841
RUN 02
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95

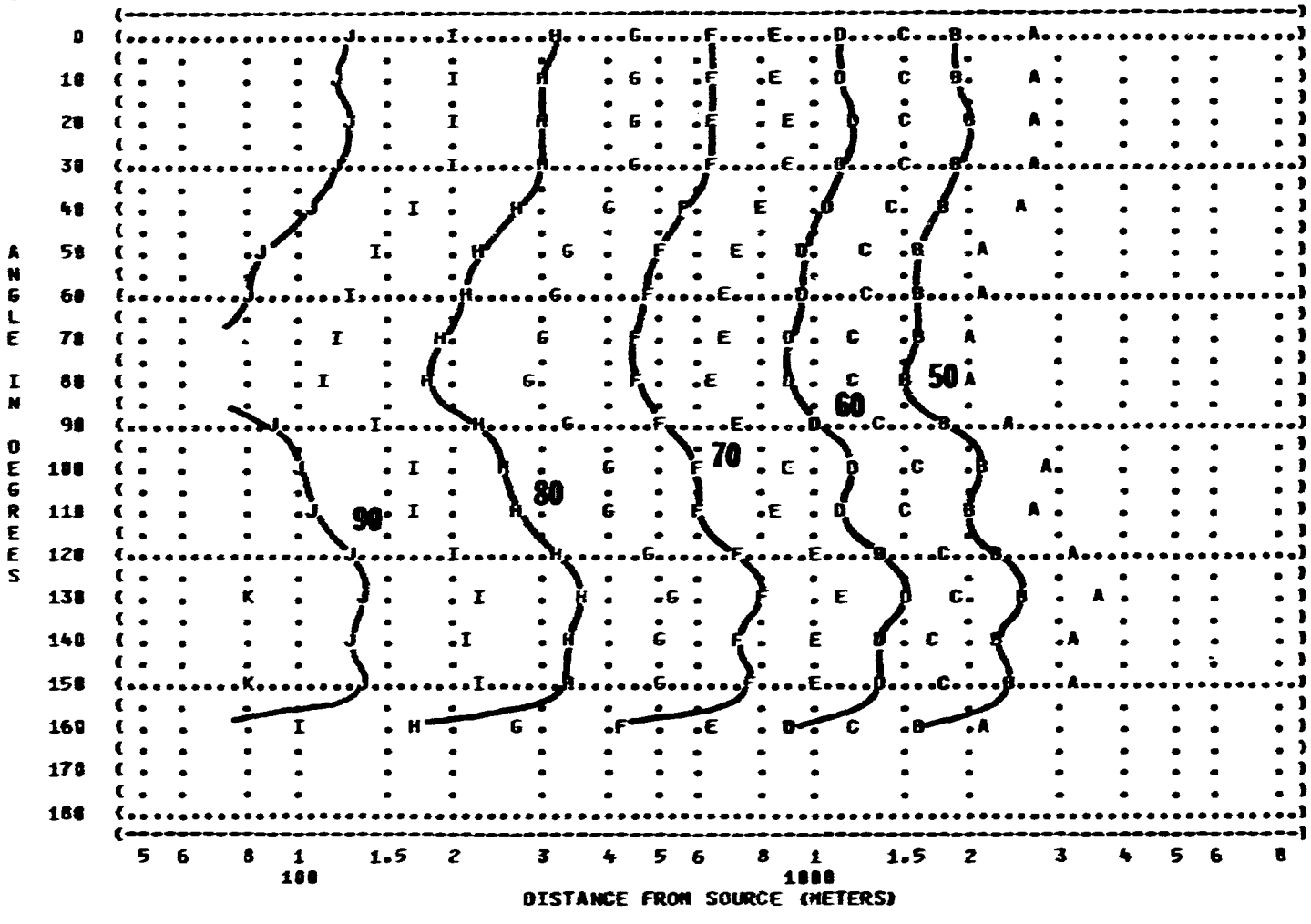


FIGURE: 5

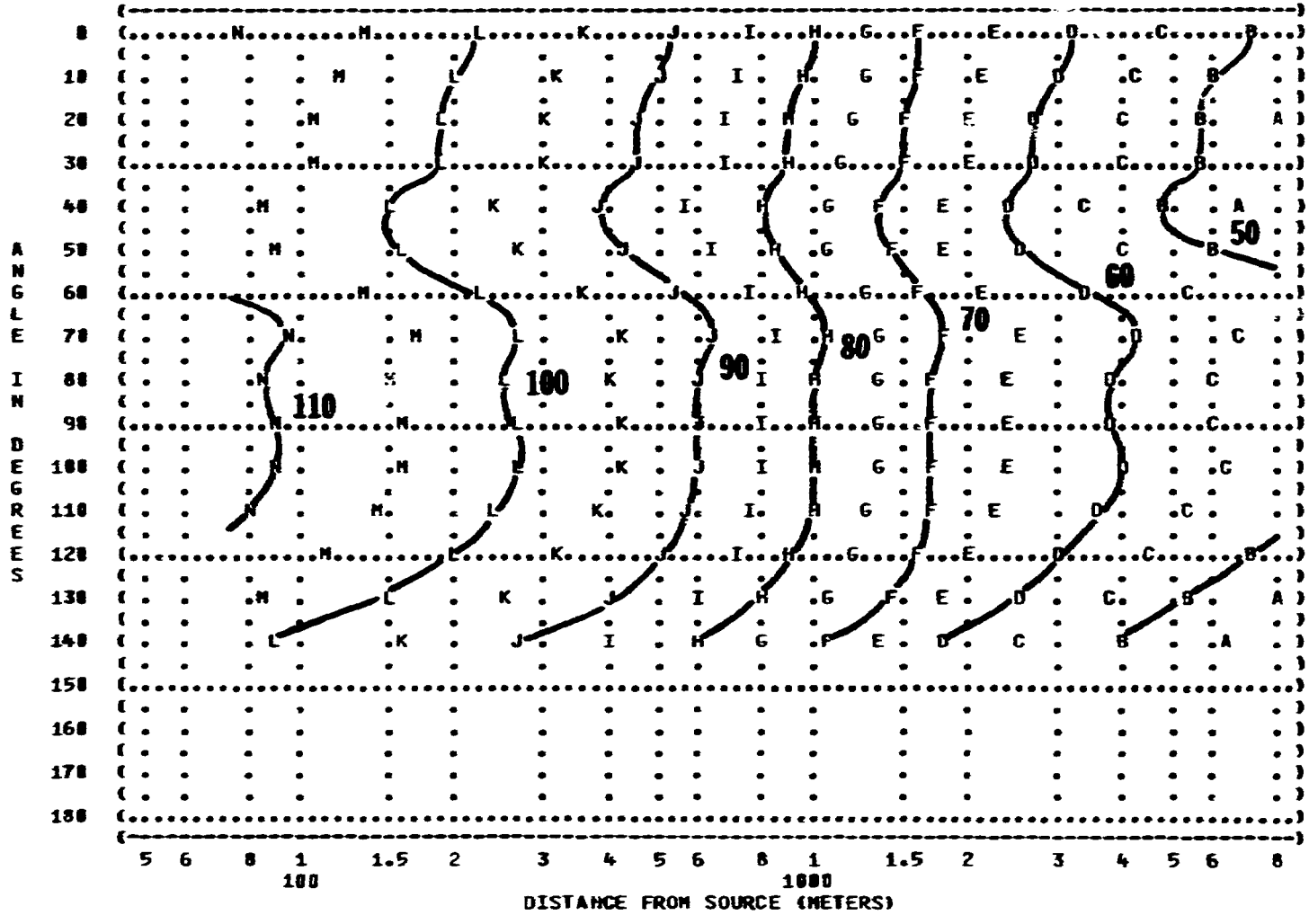
C-WEIGHTED OVERALL SOUND LEVEL (OASLC)
EQUAL LEVEL CONTOURS (DBC)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 14

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

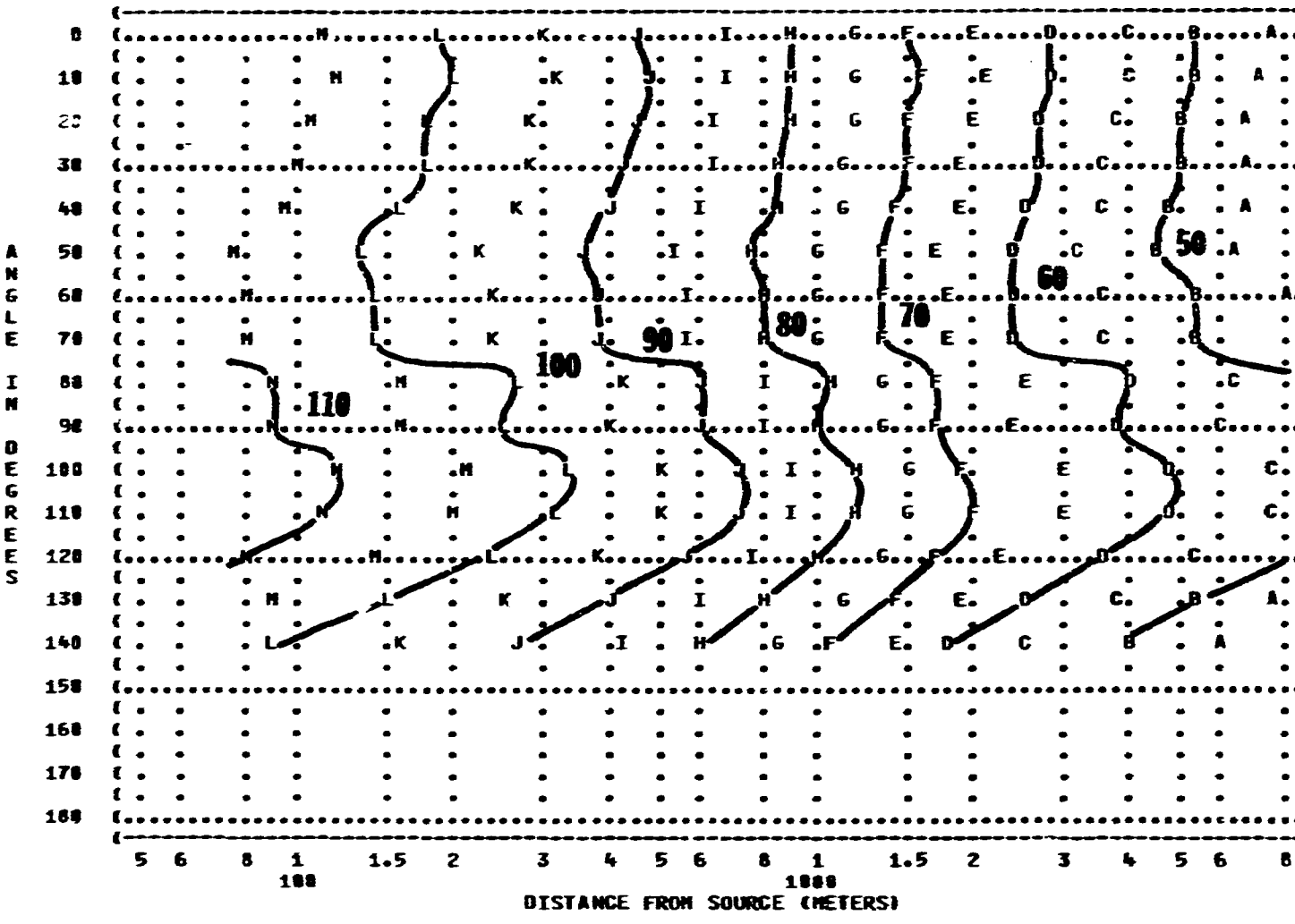
FIGURE 5 C-WEIGHTED OVERALL SOUND LEVEL (OASLC) EQUAL LEVEL CONTOURS (DBC)

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 84
08 MAY 75
PAGE 14



POINT	DBC
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

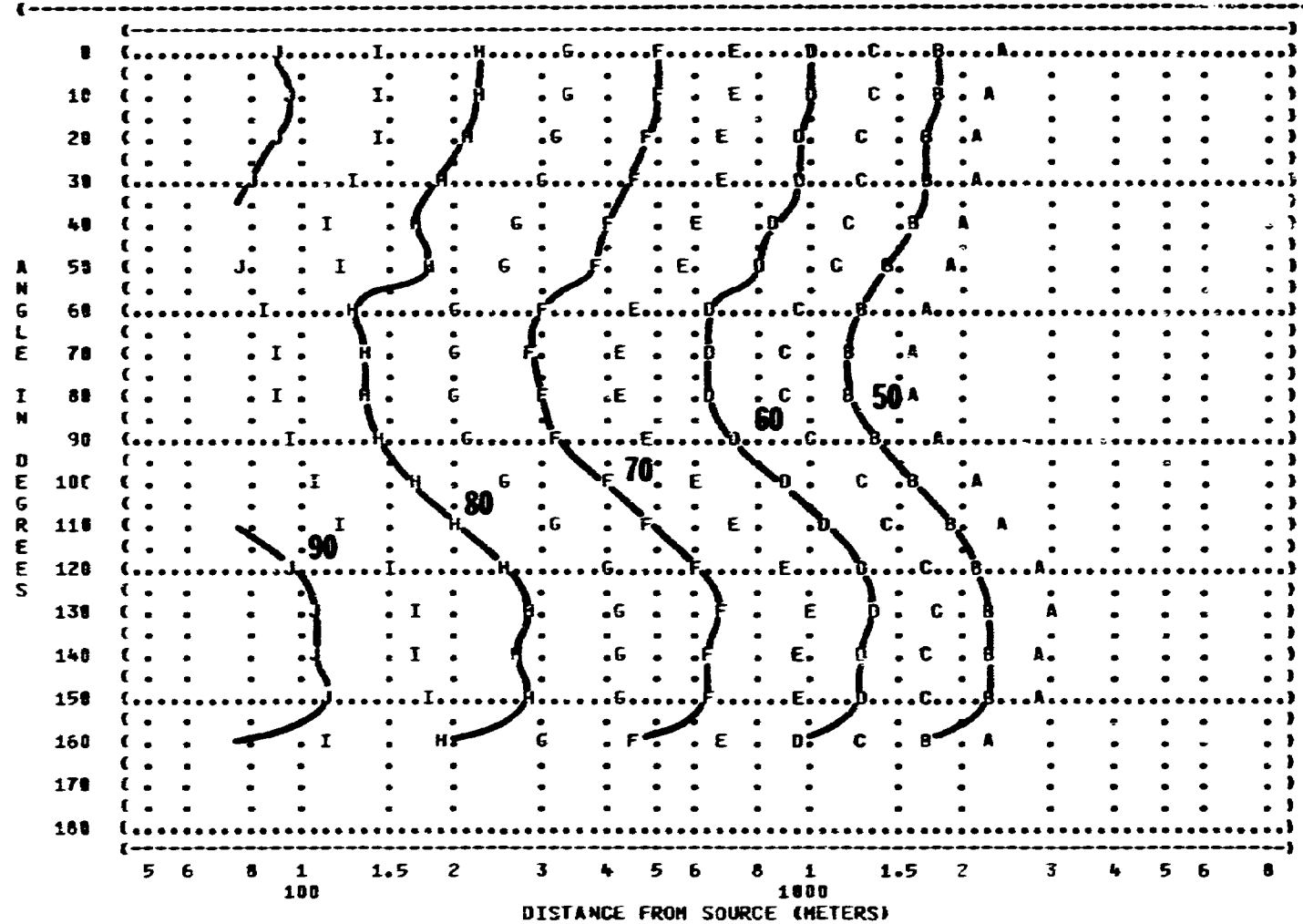
FIGURE 6 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.5
TEST 75-802-041
RUN 01
PAGE 15

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90

FIGURE: 6 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (OBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-041
RUN 02
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 78 %

POINT	OBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90

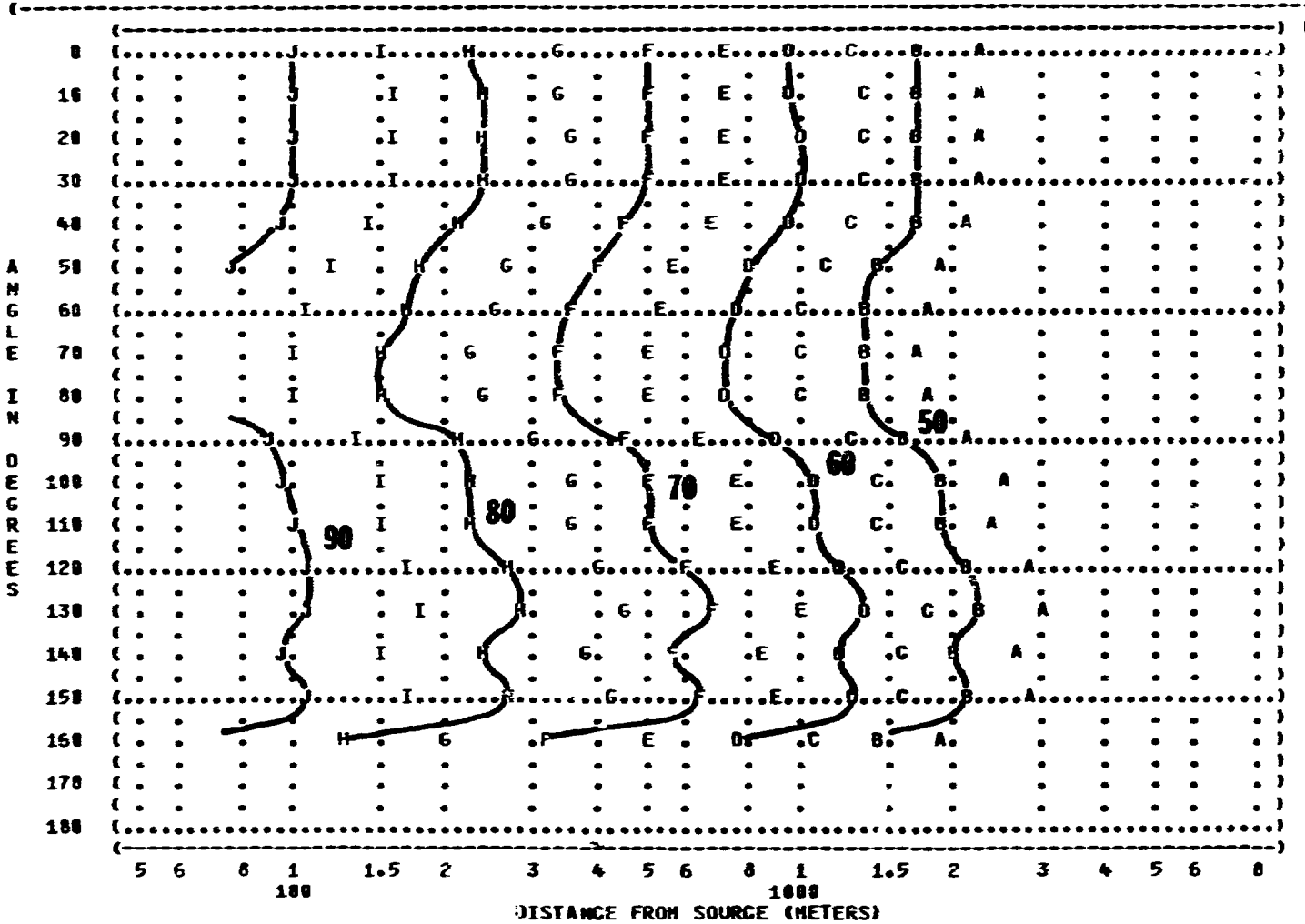


FIGURE 6 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
ONEGA 1.4
TEST 75-082-041
RUN 83
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
5750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .768 M HG
REL HUMID = 70 %

POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100

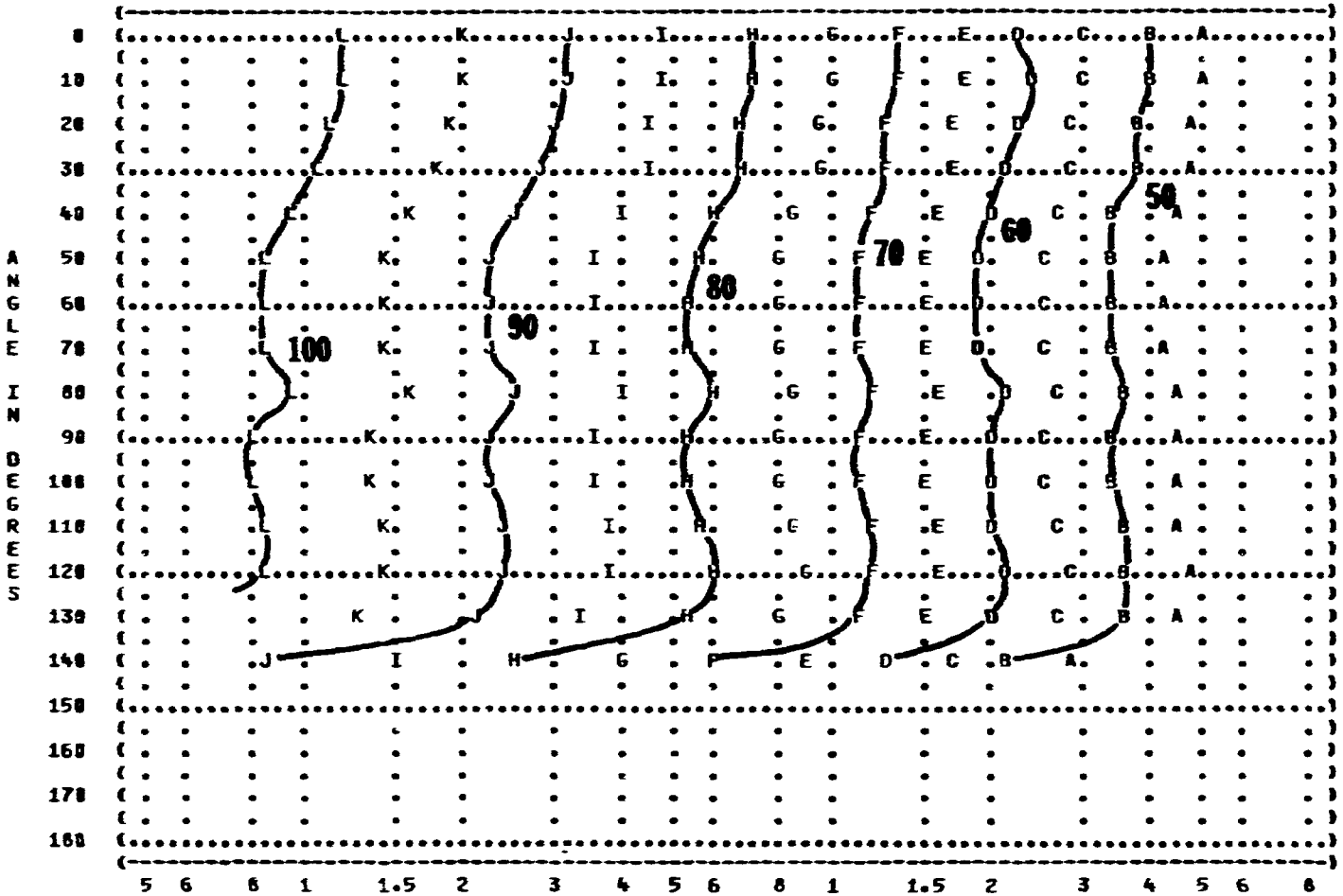


FIGURE: 6 A-WEIGHTED OVERALL SOUND LEVEL (OASLA) EQUAL LEVEL CONTOURS (DBA)

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 04
08 MAY 75
PAGE 15

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DBA
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100

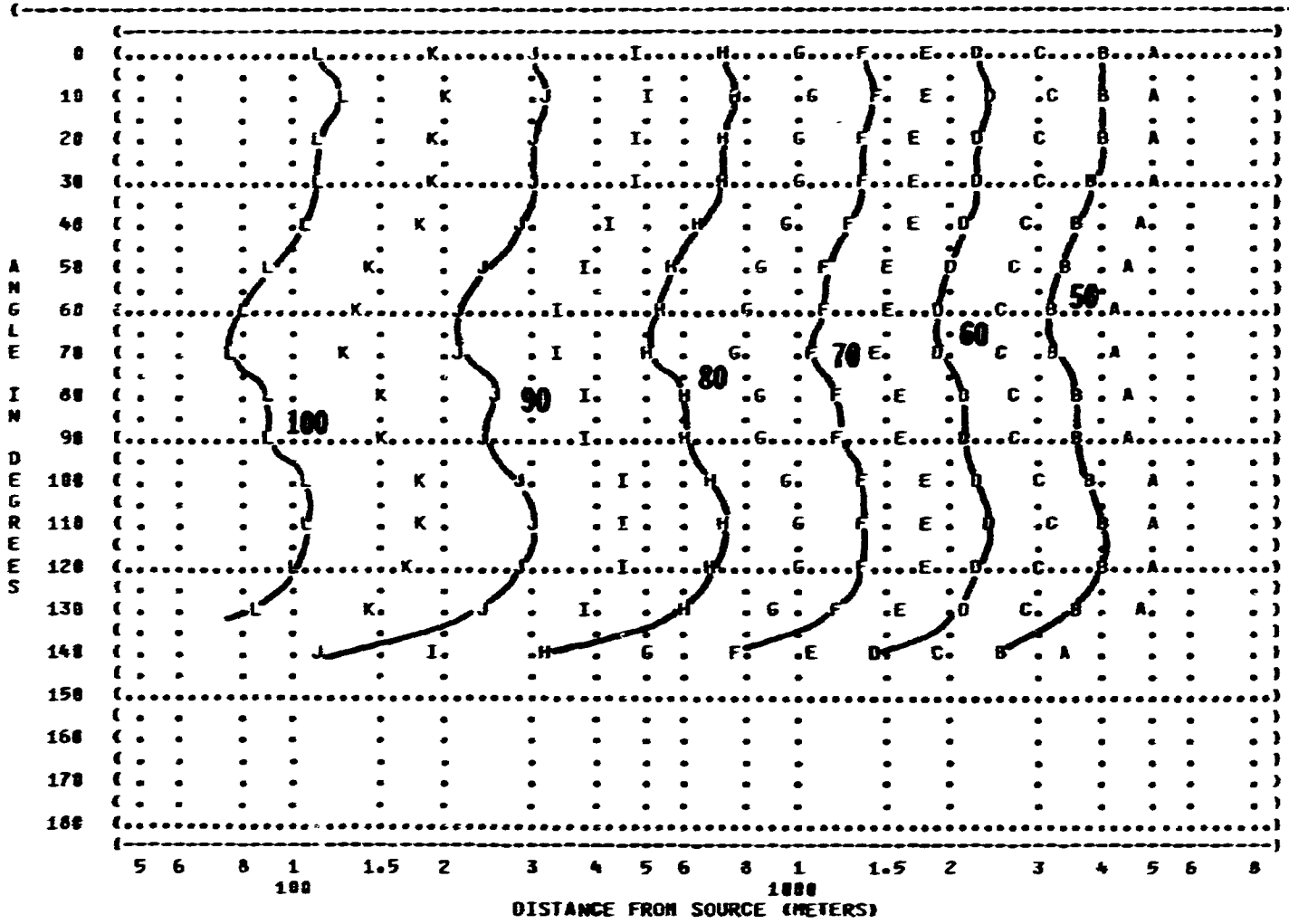


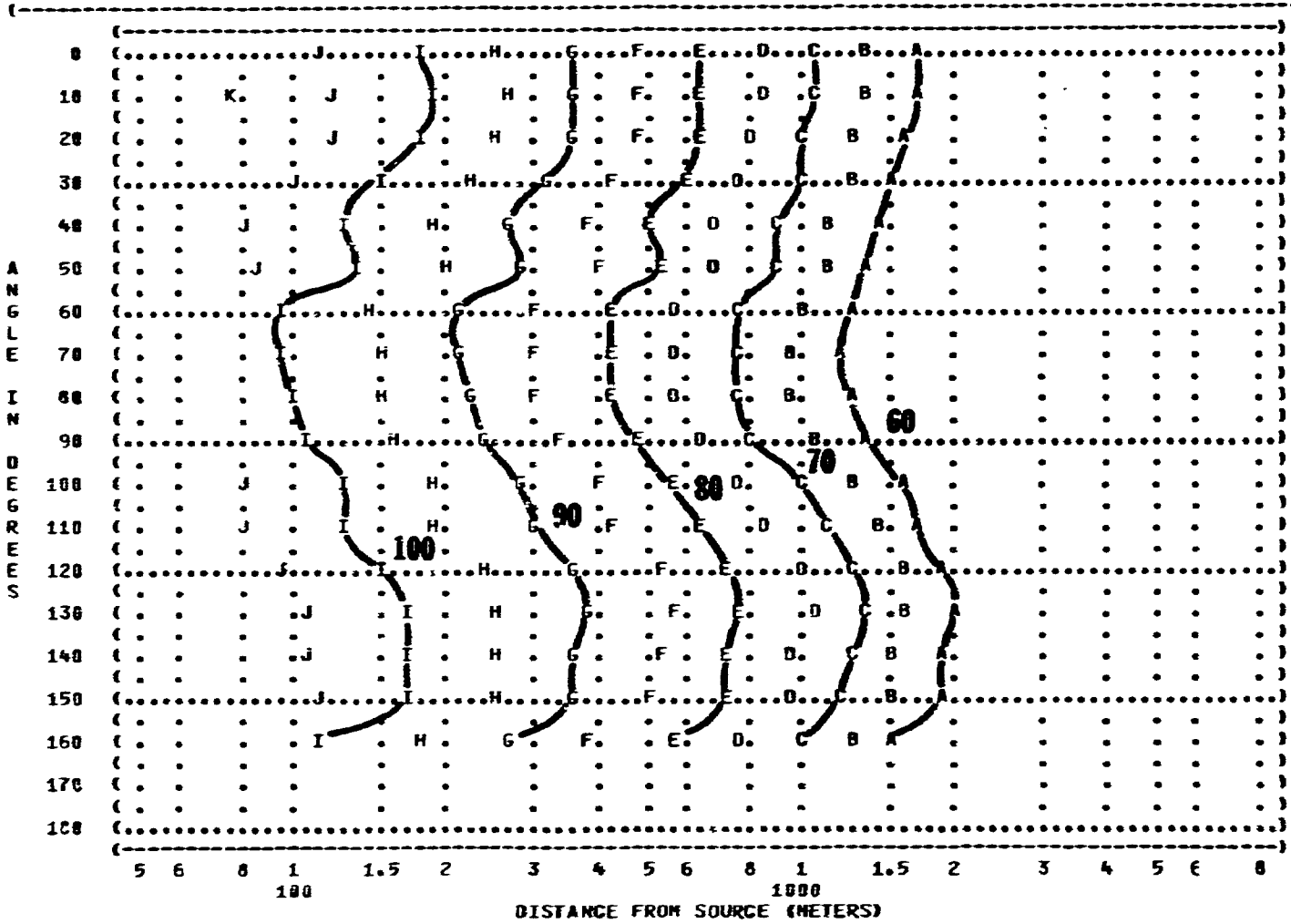
FIGURE 7 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION: OMEGA 1.4 TEST 75-082-041 RUN 01 08 MAY 75 PAGE 16

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT T56-A-10 ENGINE FAR FIELD NOISE

OPERATION: IDLE POWER 17% ENGINE SHP INBOARD ENGINES

METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %



POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110

FIGURE 7 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION: OMEGA 1.4 TEST 75-002-041 RUN 02 08 MAY 75 PAGE 16

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT T56-A-10 ENGINE FAR FIELD NOISE

OPERATION: IDLE POWER 113 ENGINE SHP OUTBOARD ENGINES

METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110

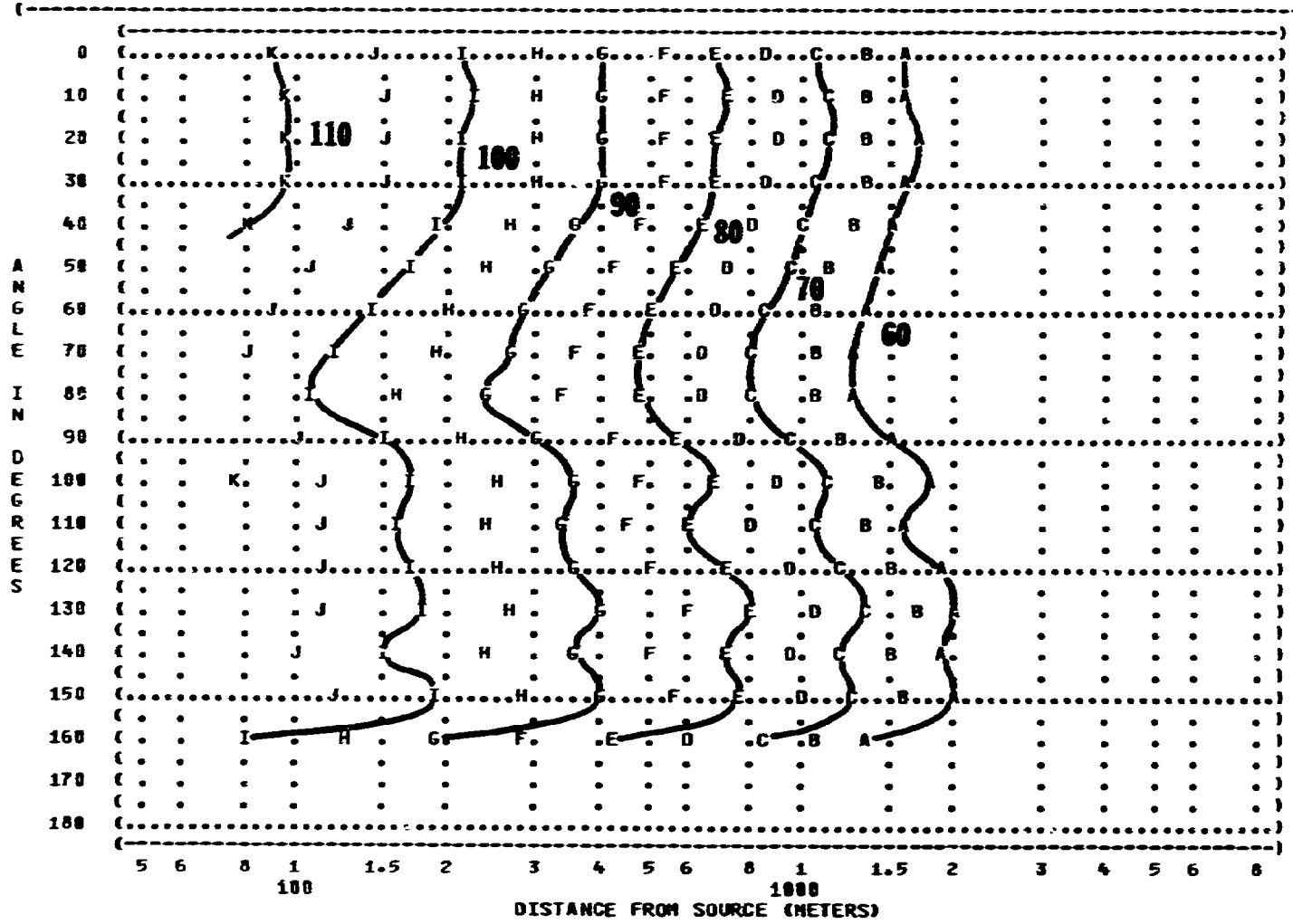


FIGURE 7 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115

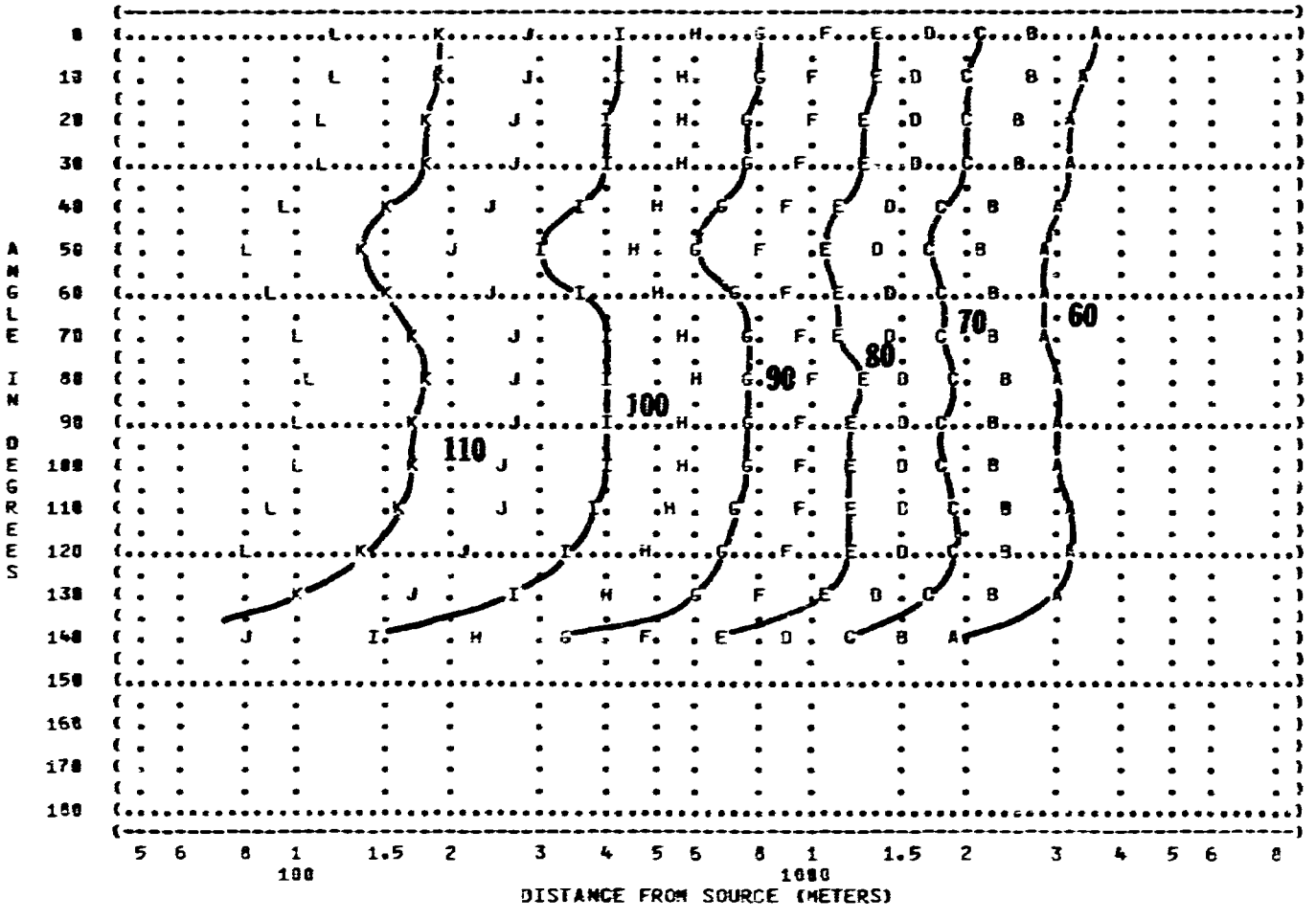


FIGURE: 7 PERCEIVED NOISE LEVEL WITH SMOOTH TONE CORRECTION (PNLT) EQUAL LEVEL CONTOURS (PNDB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 16

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	PNDB
A	60
B	65
C	70
D	75
E	80
F	85
G	90
H	95
I	100
J	105
K	110
L	115

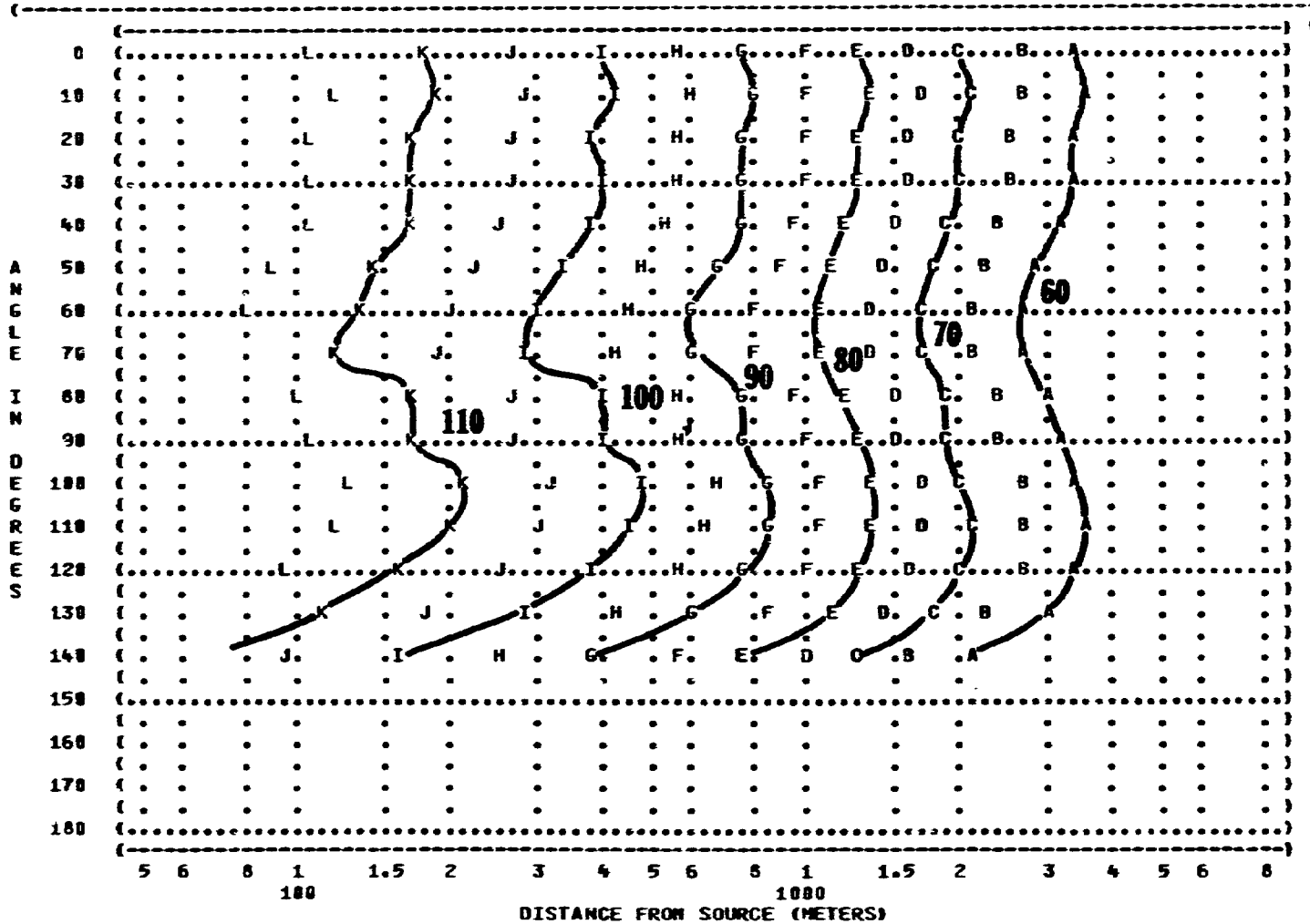


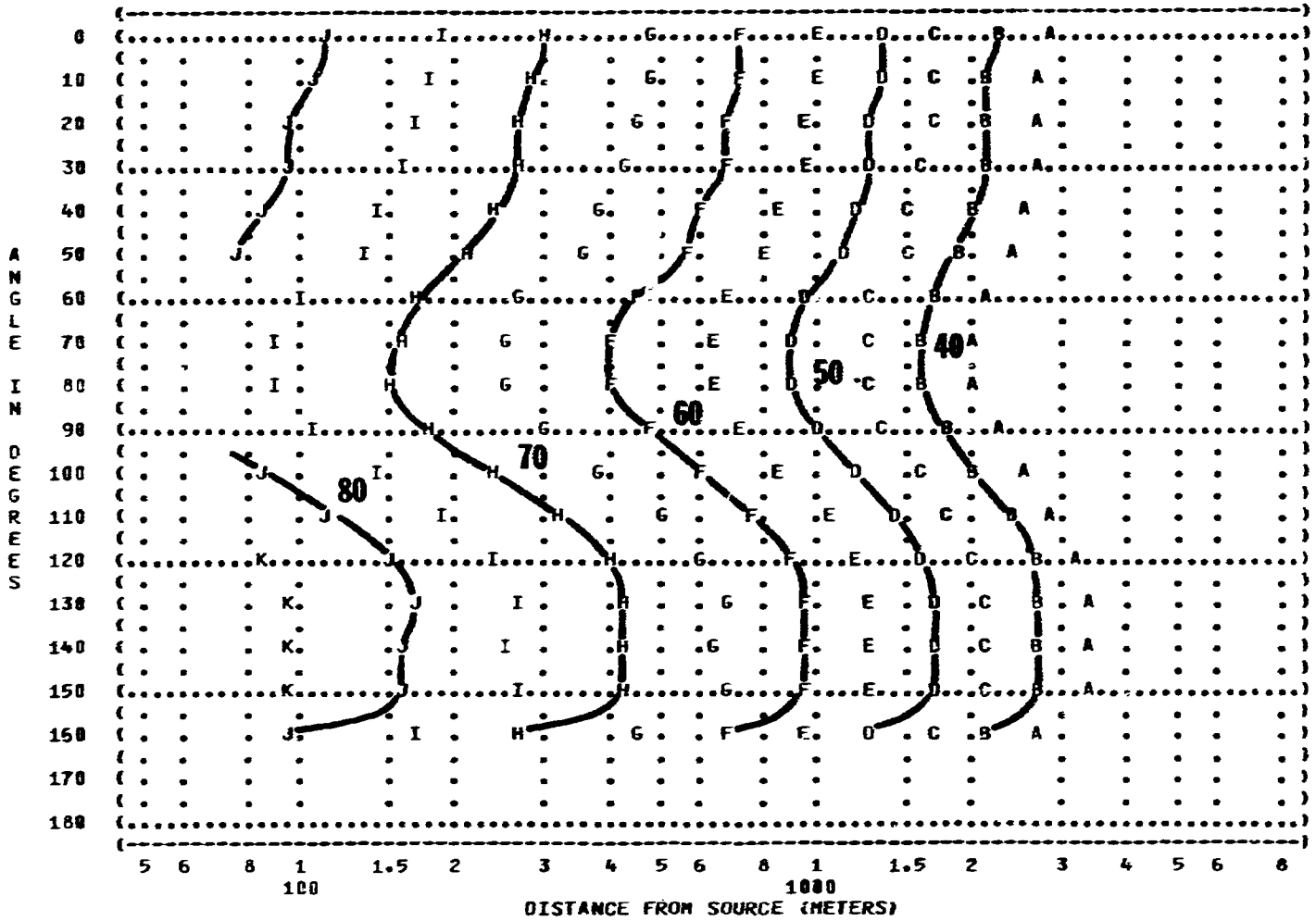
FIGURE: 8 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 01
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE 8 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATIONS:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

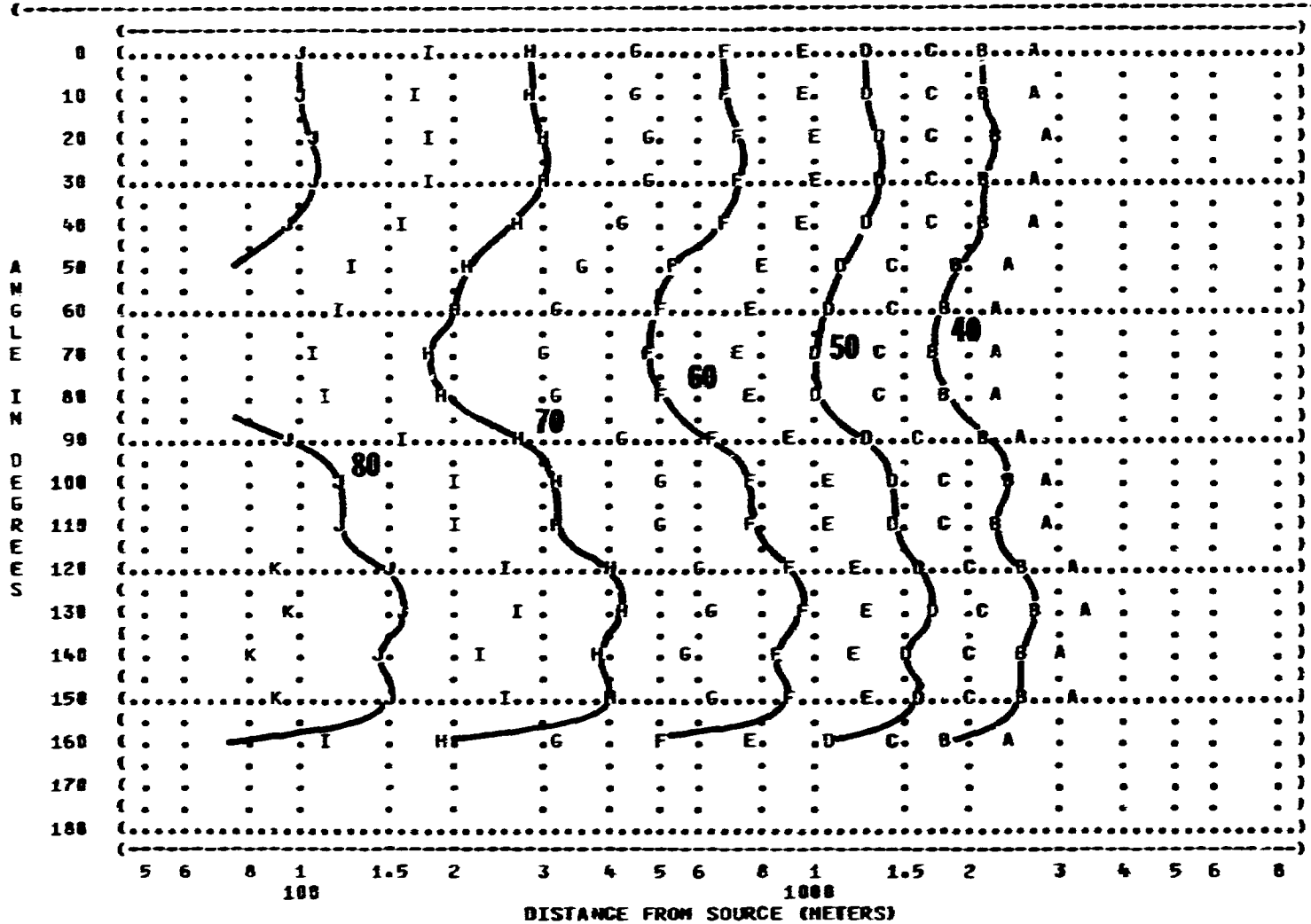


FIGURE 8 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

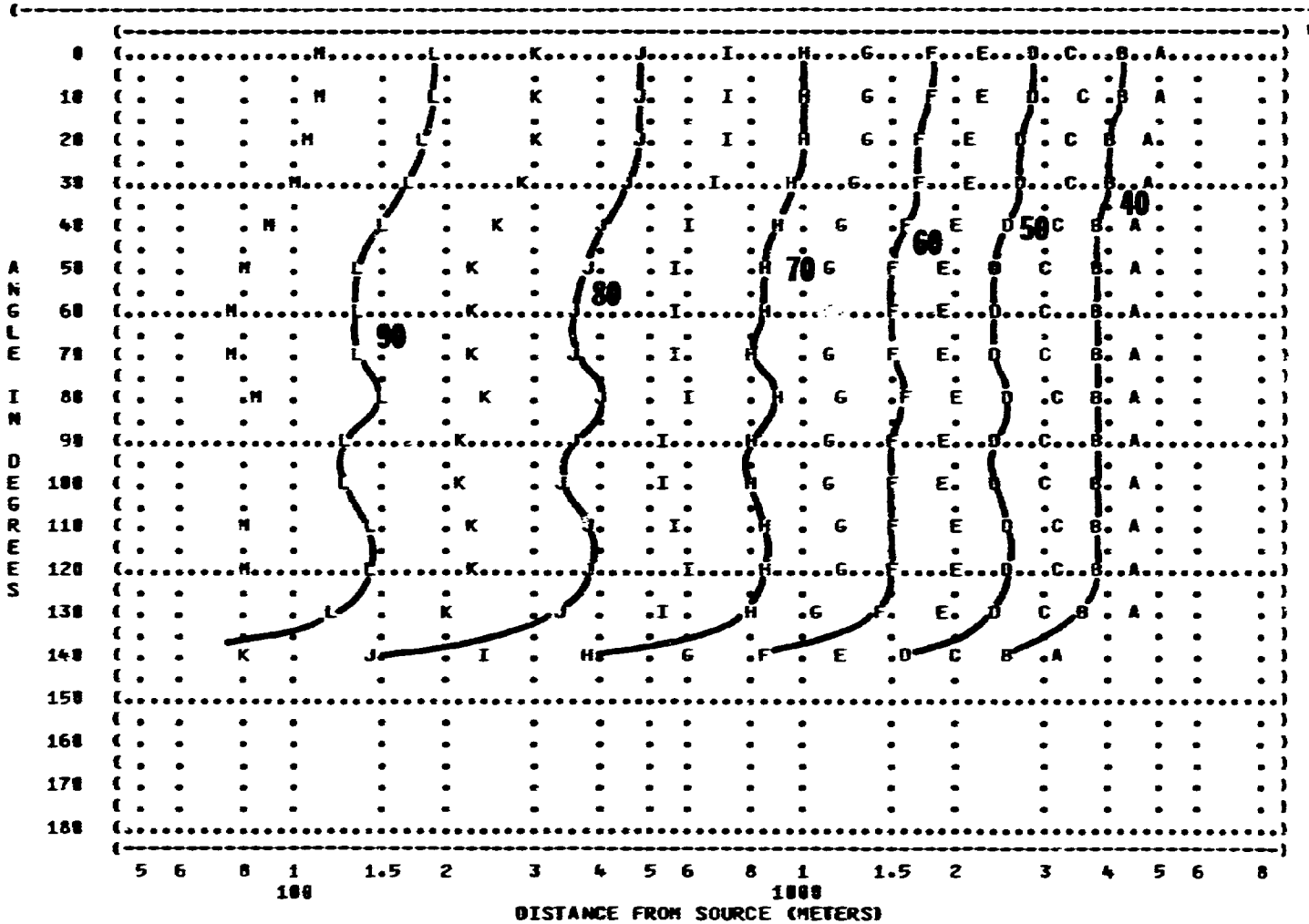


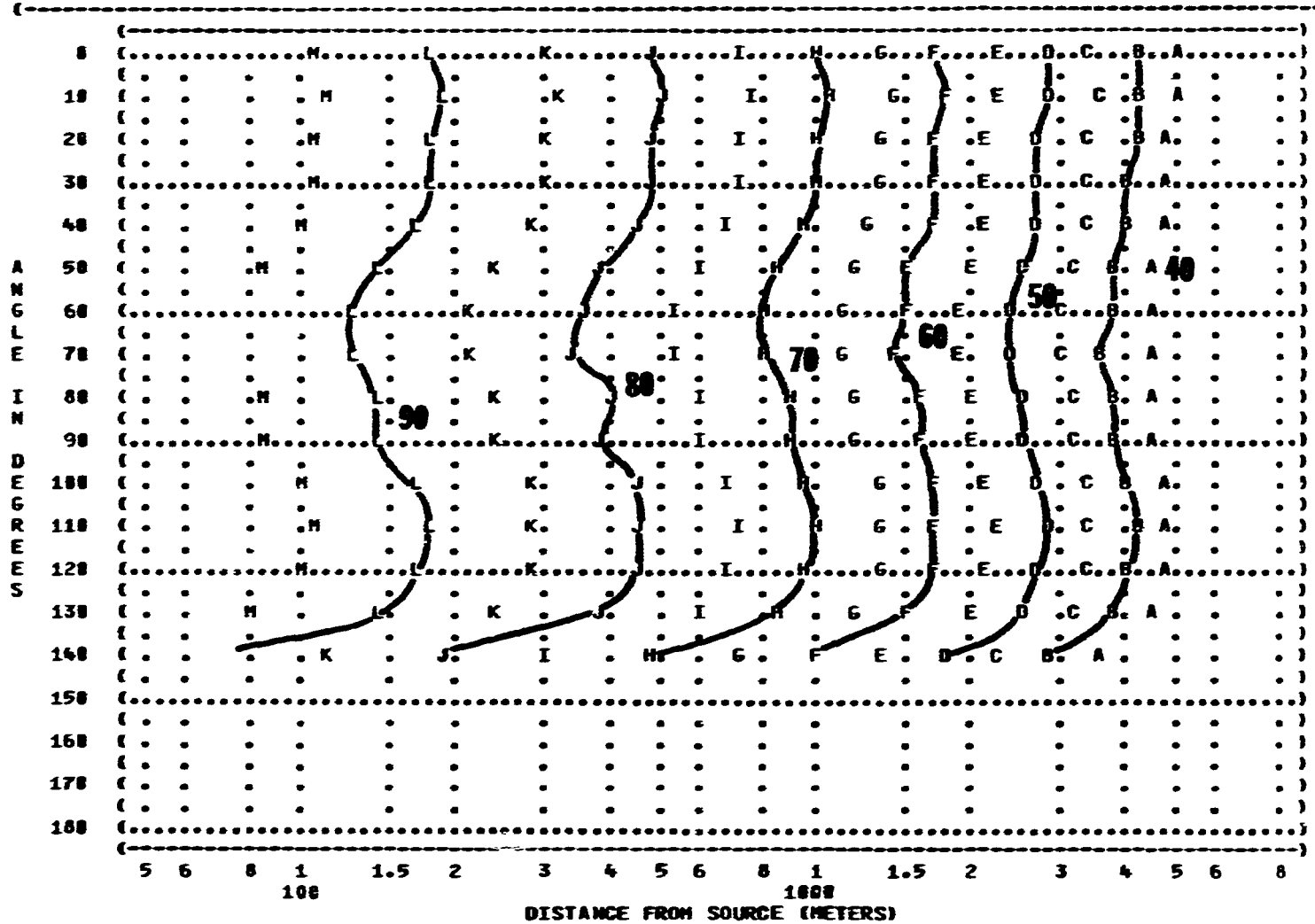
FIGURE 8 PREFERRED SPEECH INTERFERENCE LEVEL (PSIL) EQUAL LEVEL CONTOURS (DB)

IDENTIFICATIONS:
OMEGA 1.4
TEST 75-002-04i
RUN 04
08 MAY 75
PAGE 17

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATIONS:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

FIGURE: 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
ONEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
17% ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

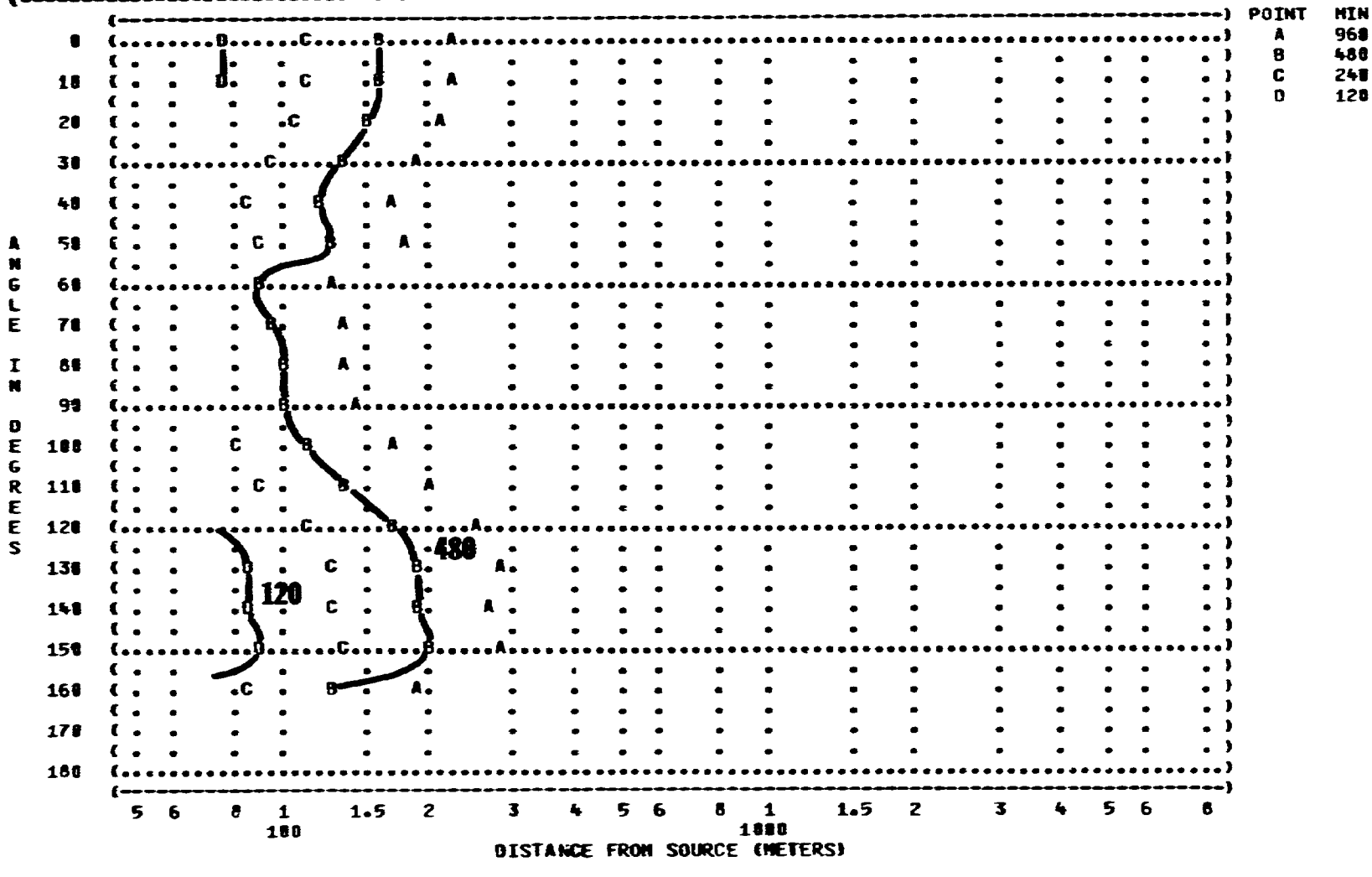


FIGURE: 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 01
08 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

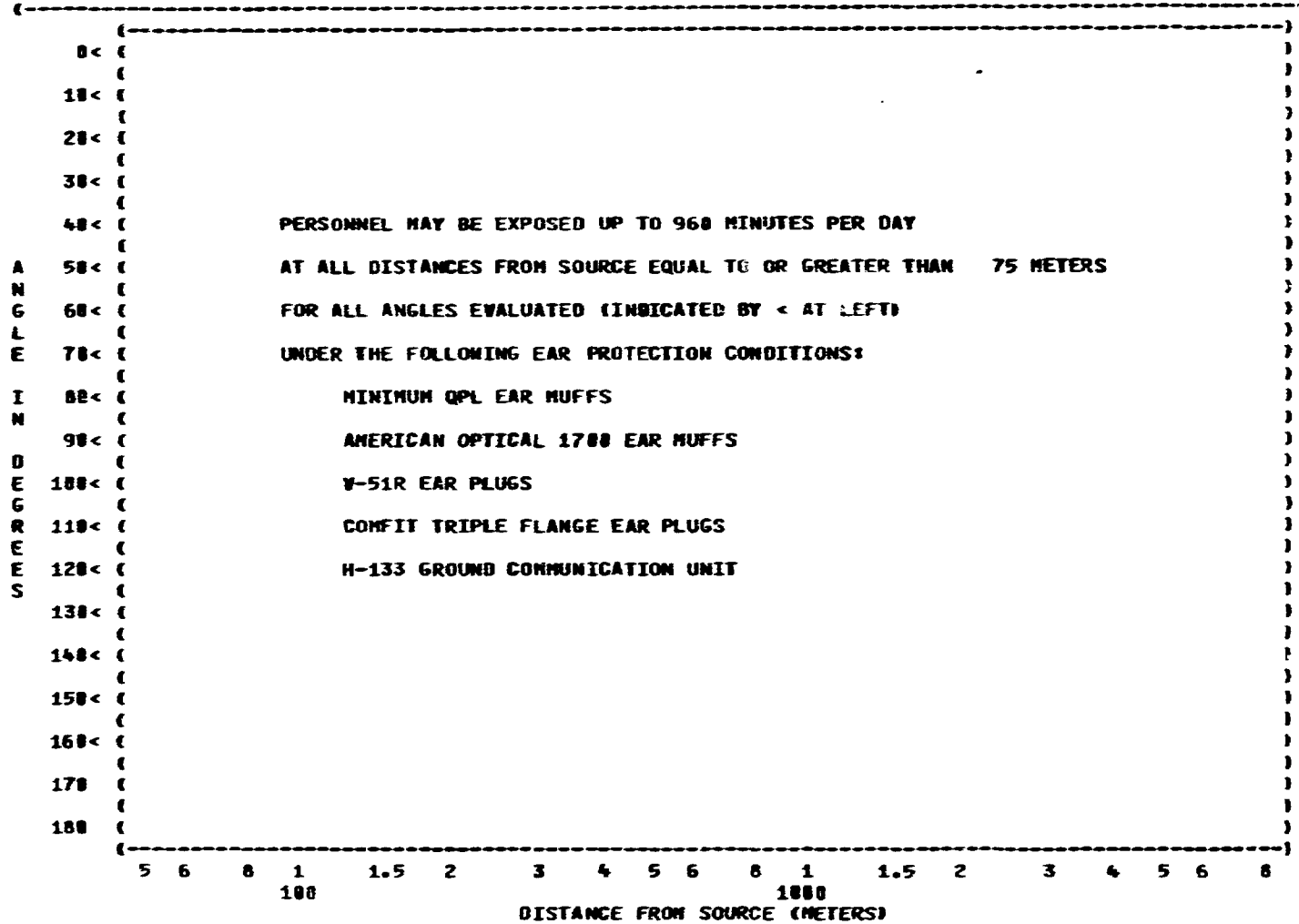


FIGURE 9: MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240
D	120

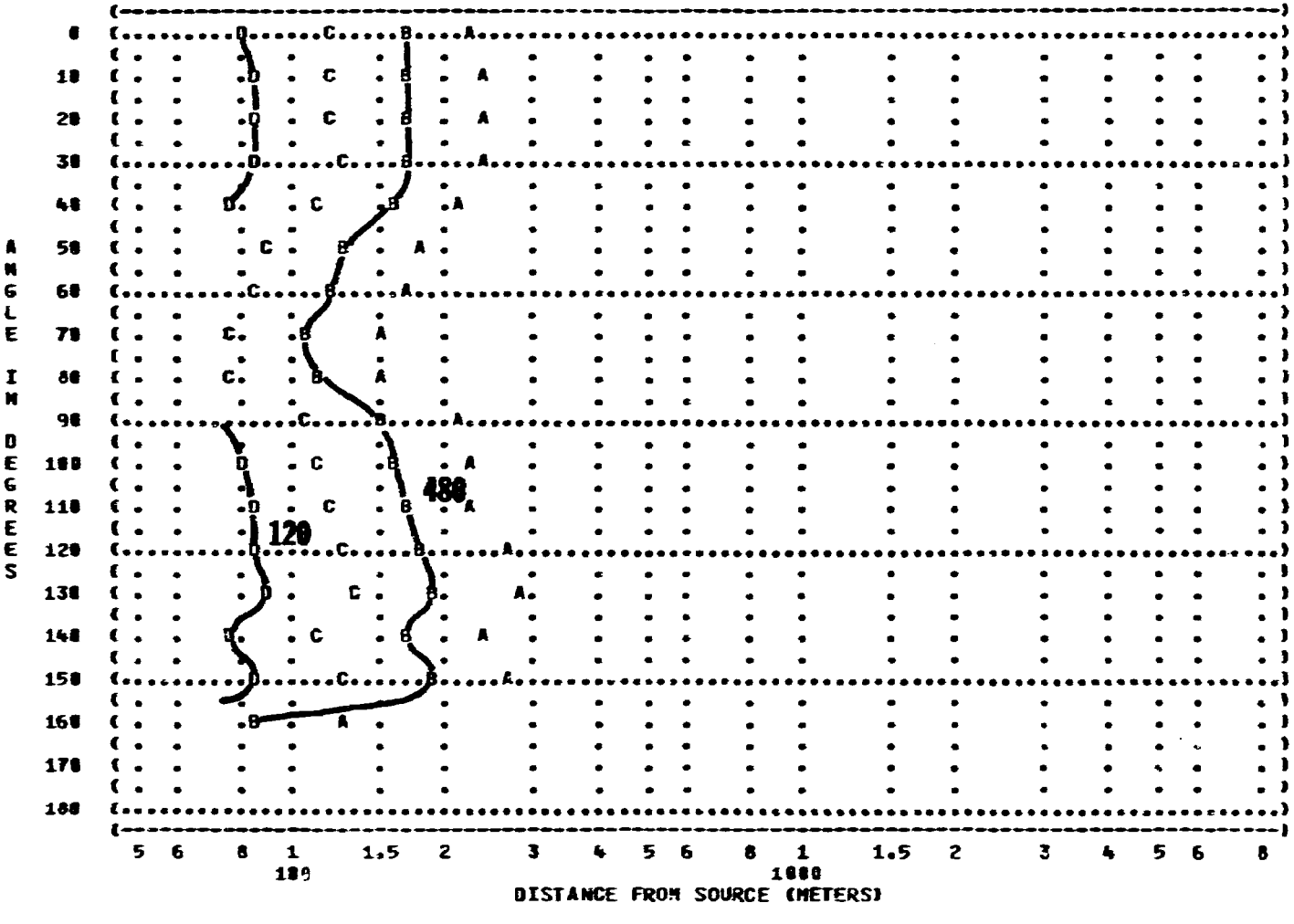


FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

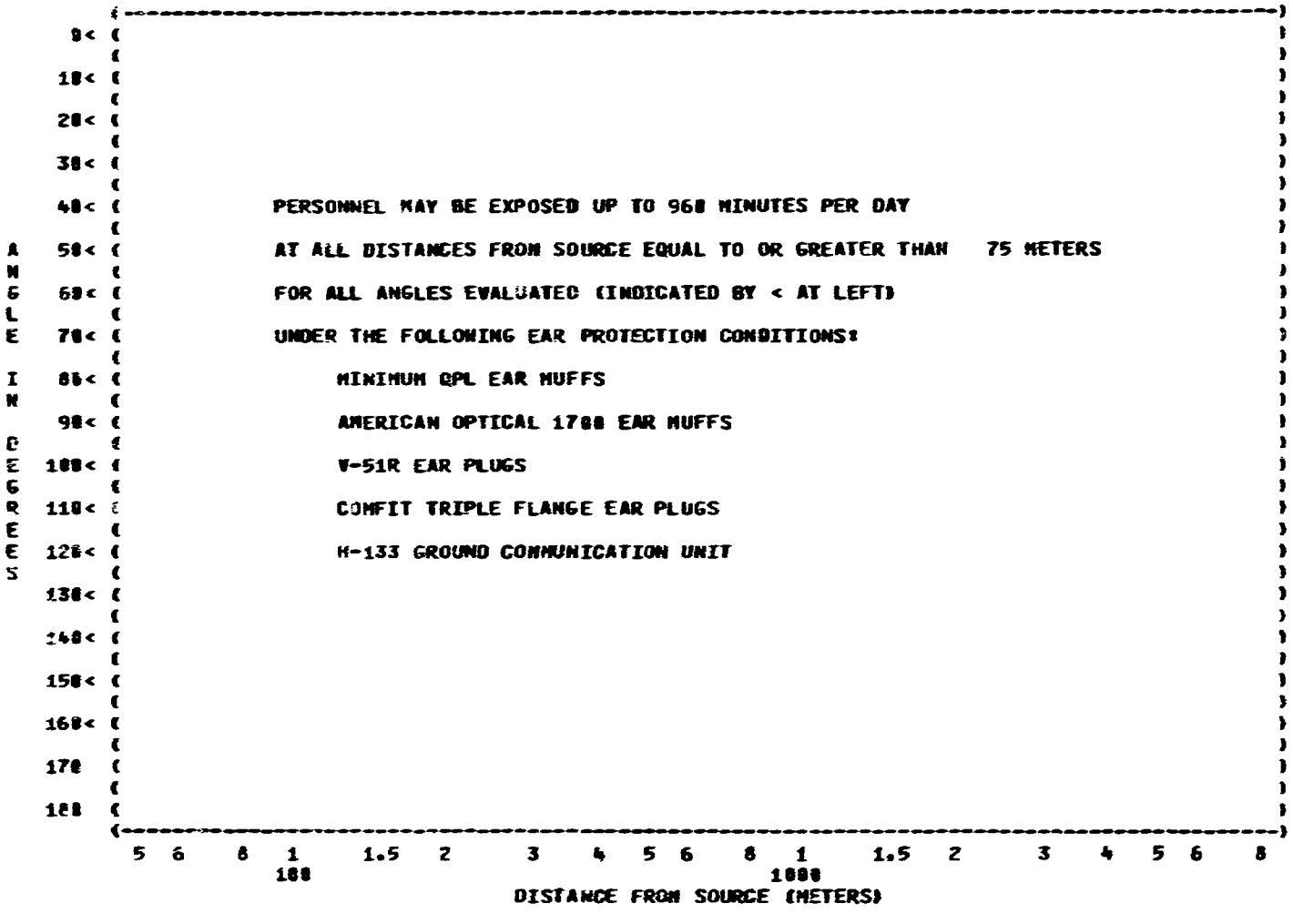


FIGURE: 9

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-092-041
RUN 03
08 MAY 75
PAGE 7

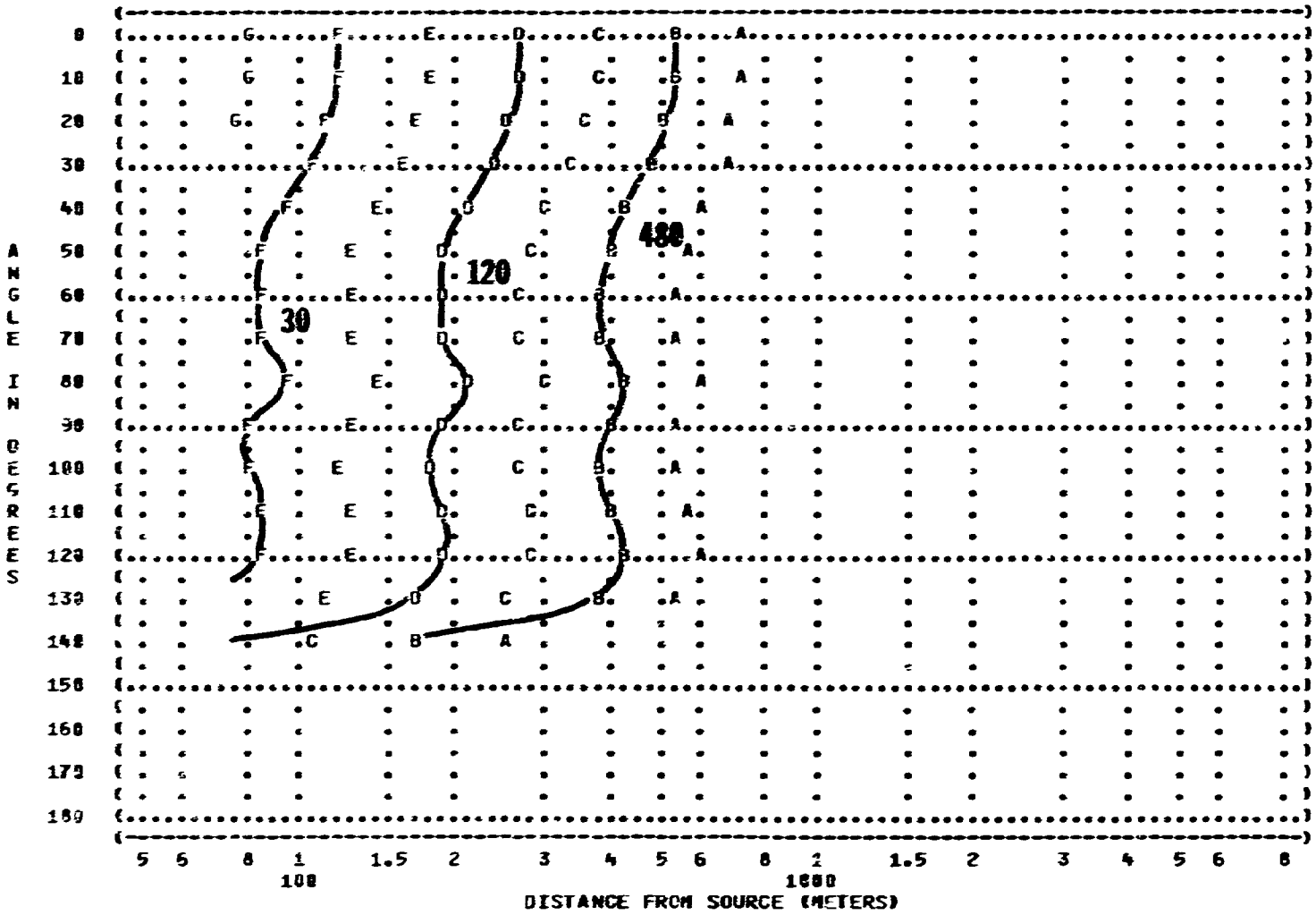


FIGURE: 9

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM OPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 83
08 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480

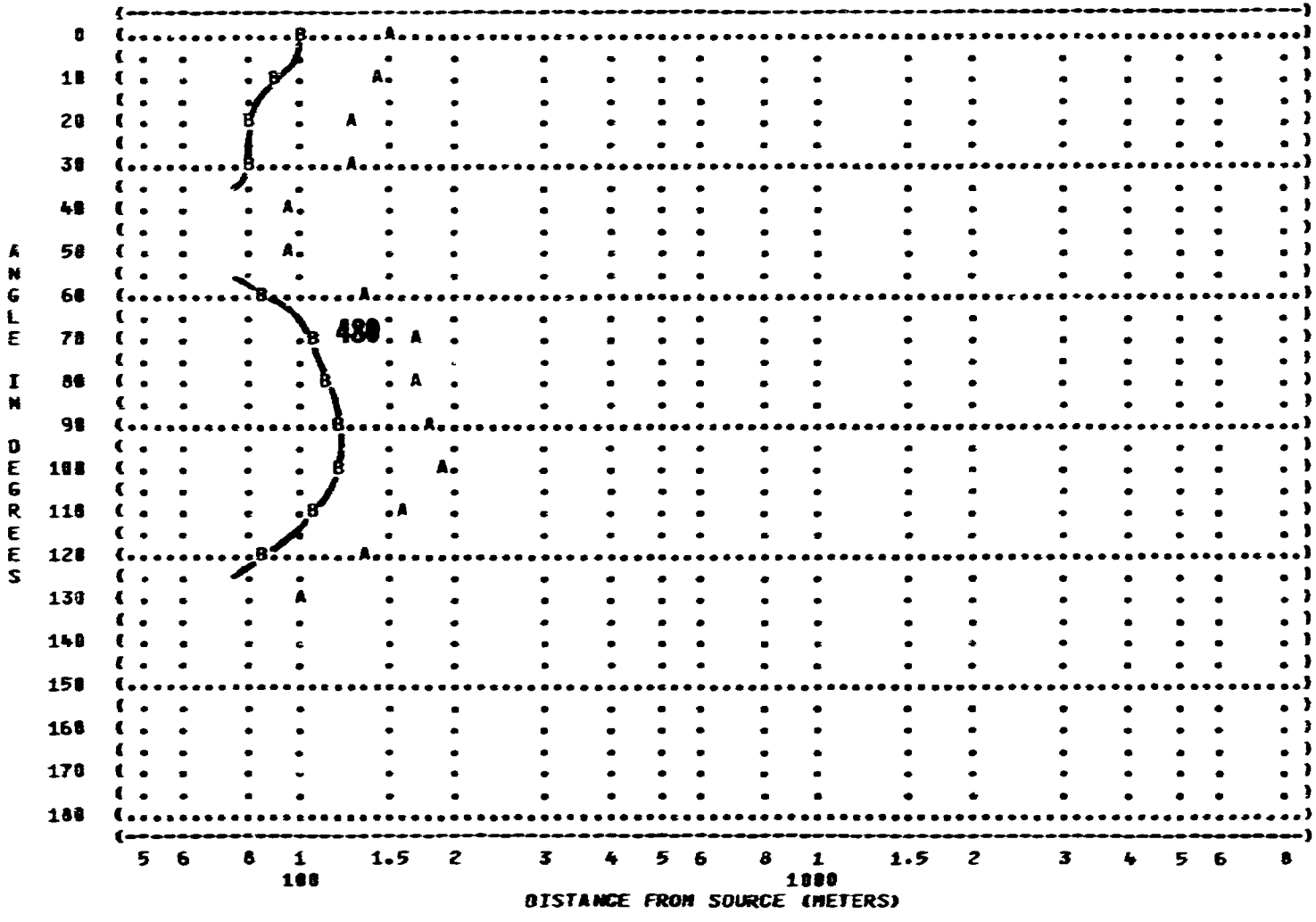


FIGURE: 9

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1700 EAR MUFFS

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 9

POINT	MIN
A	960
B	480

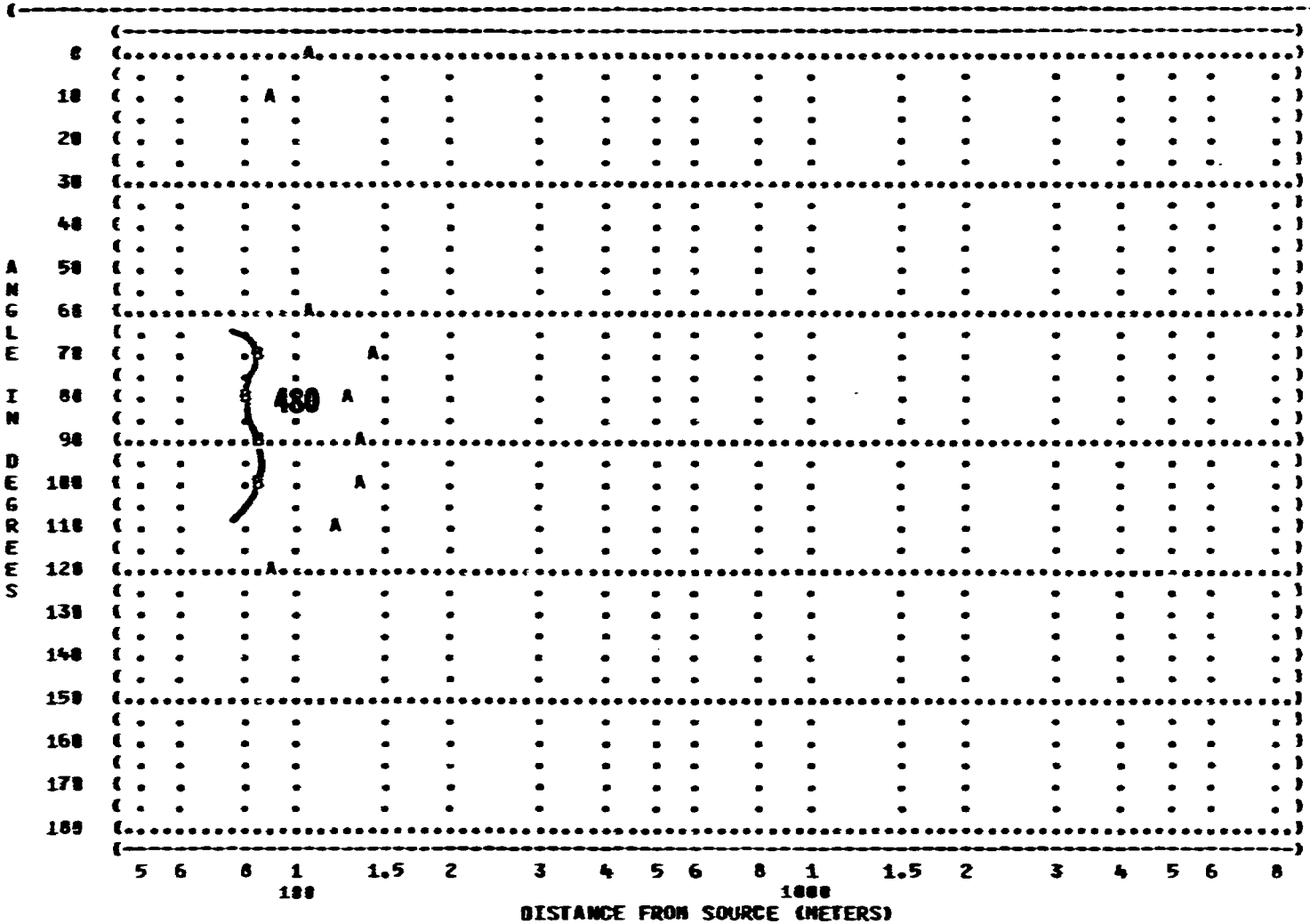


FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-041
RUN 03

88 MAY 75

PAGE 18

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3758 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .768 M HG
REL HUMID = 78 %

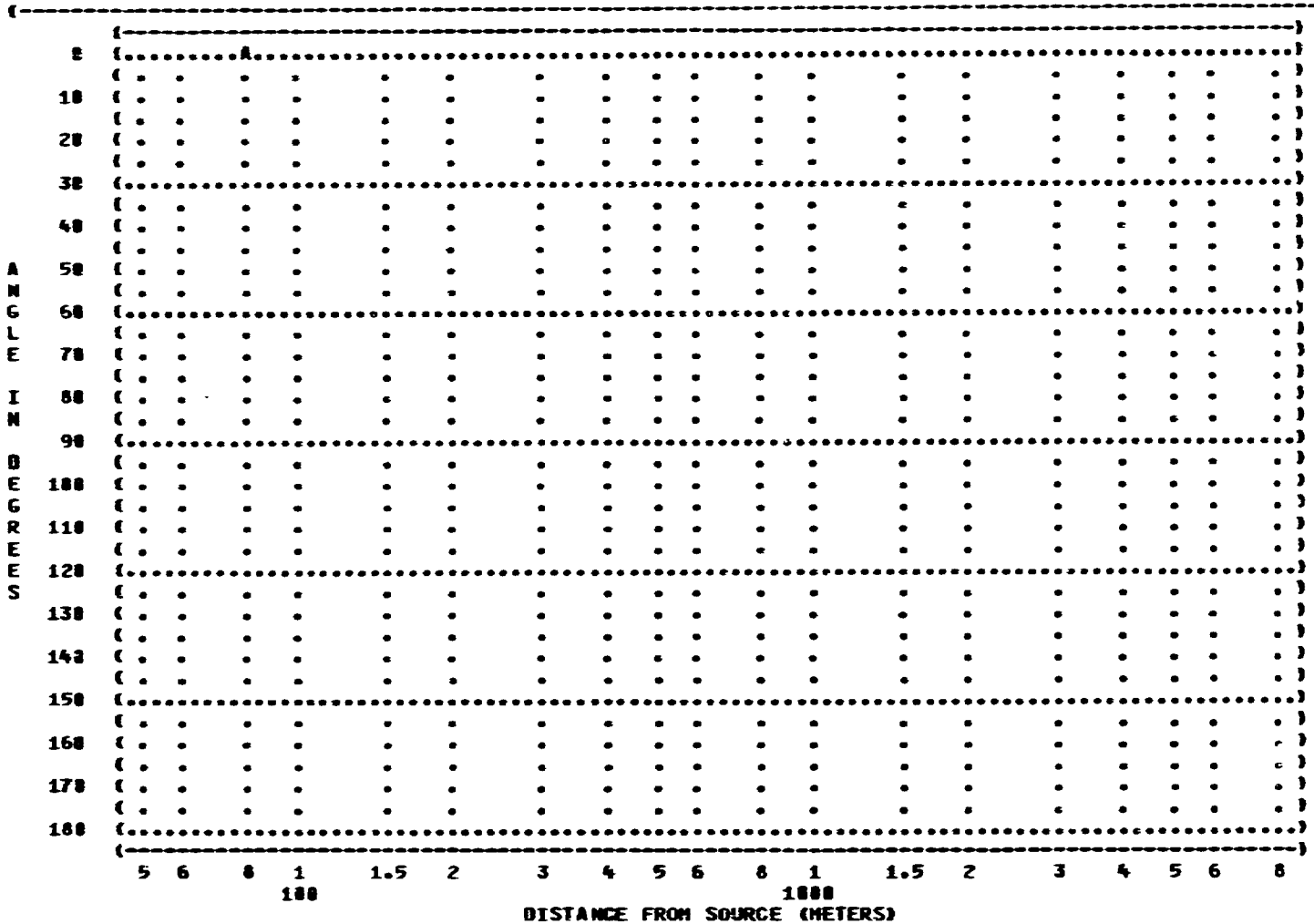


FIGURE: 9	MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73) EQUAL TIME CONTOURS (MINUTES) COMFIT TRIPLE FLANGE EAR PLUGS	IDENTIFICATION: OMEGA 1.4 TEST 75-002-041 RUN 83 05 MAY 75 PAGE 11
NOISE SOURCE/SUBJECT: P-3A AIRCRAFT T56-A-10 ENGINE FAR FIELD NOISE	OPERATION: MILITARY POWER 3750 ENGINE SHP INBOARD ENGINES	METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 78 %

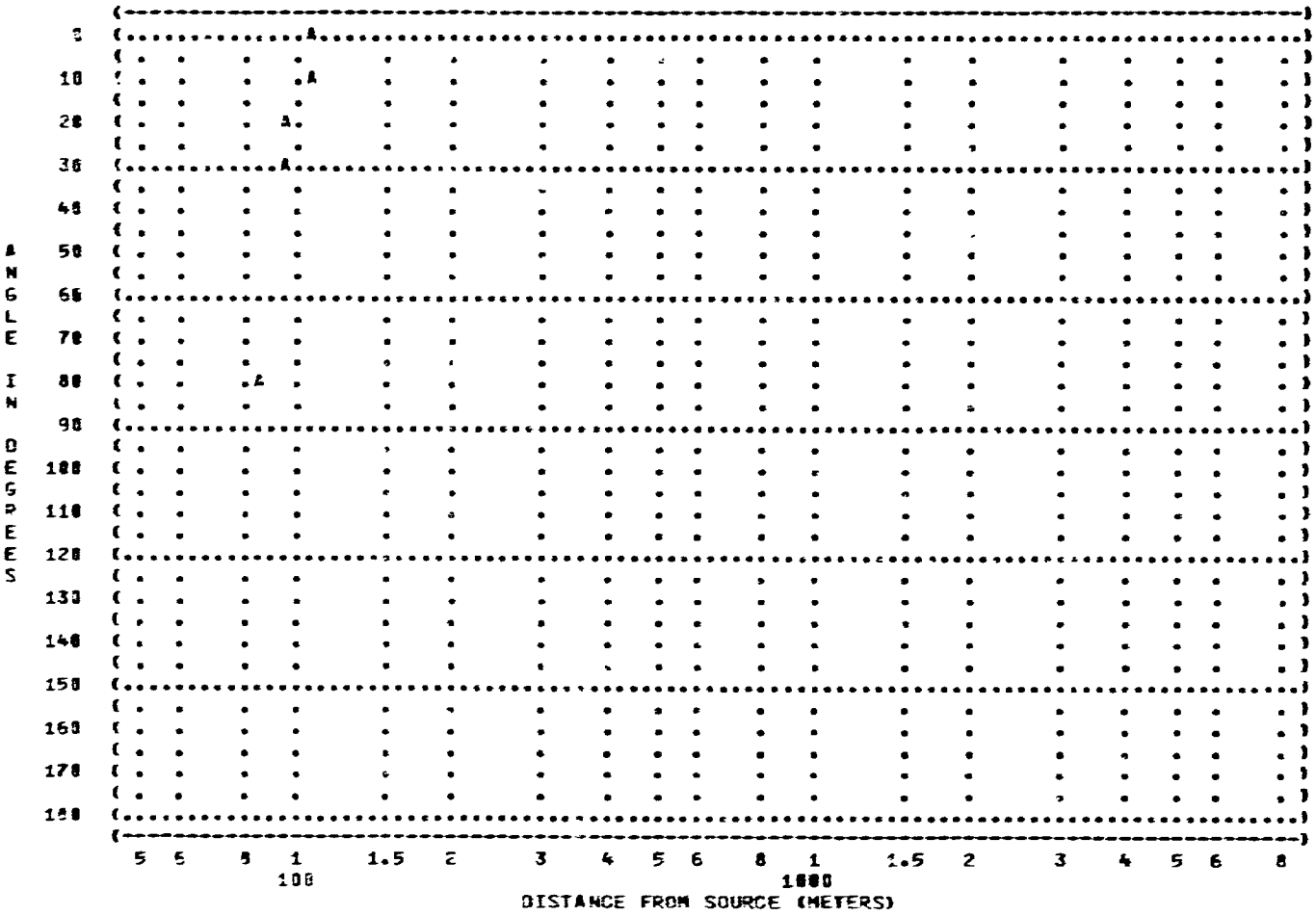


FIGURE: 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 12

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

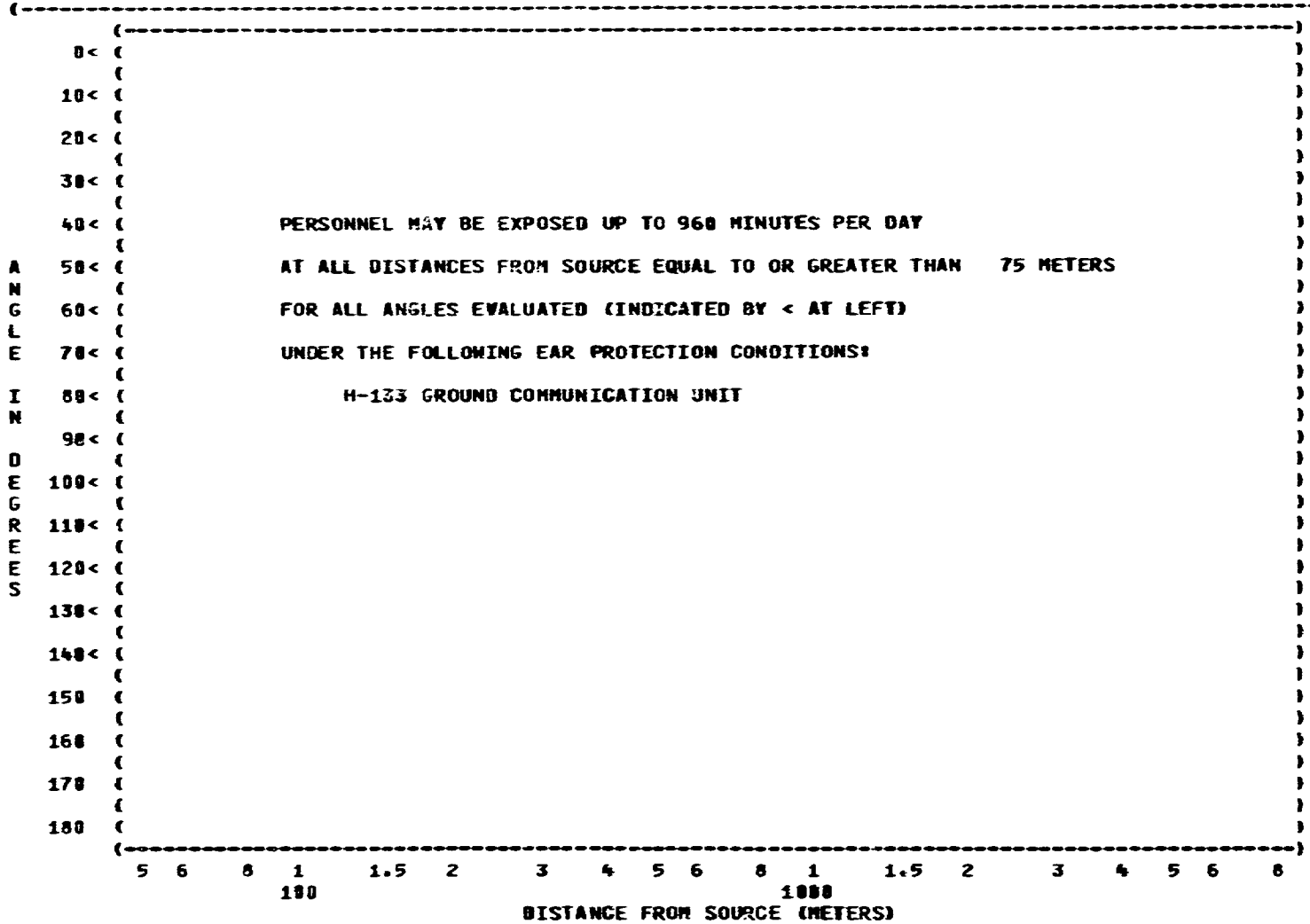


FIGURE: 9

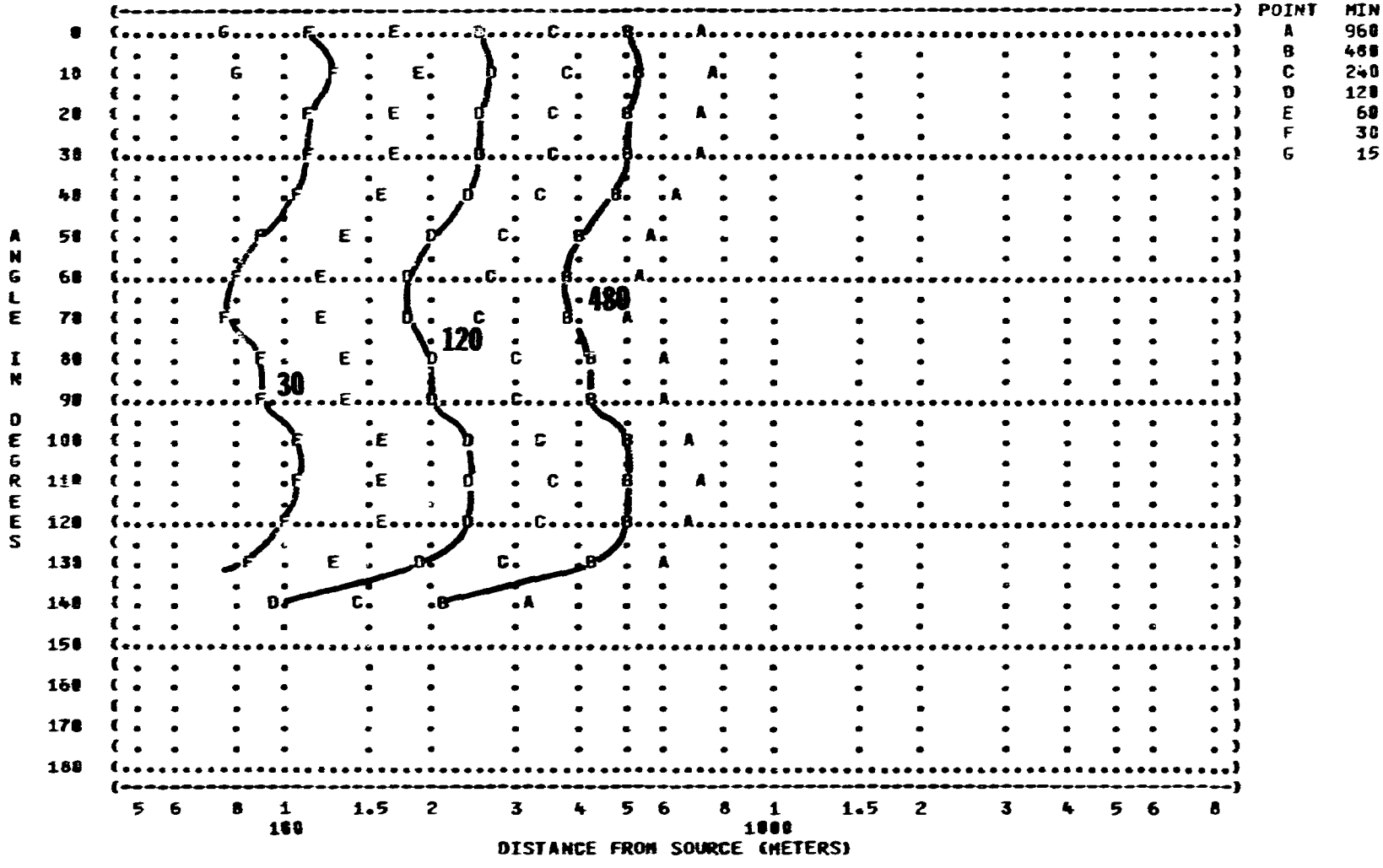
MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
NO PROTECTION

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 84
08 MAY 75
PAGE 7

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-16 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	MIN
A	960
B	480
C	240
D	120
E	60
F	30
G	15

FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
MINIMUM QPL EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 8

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480
C	240

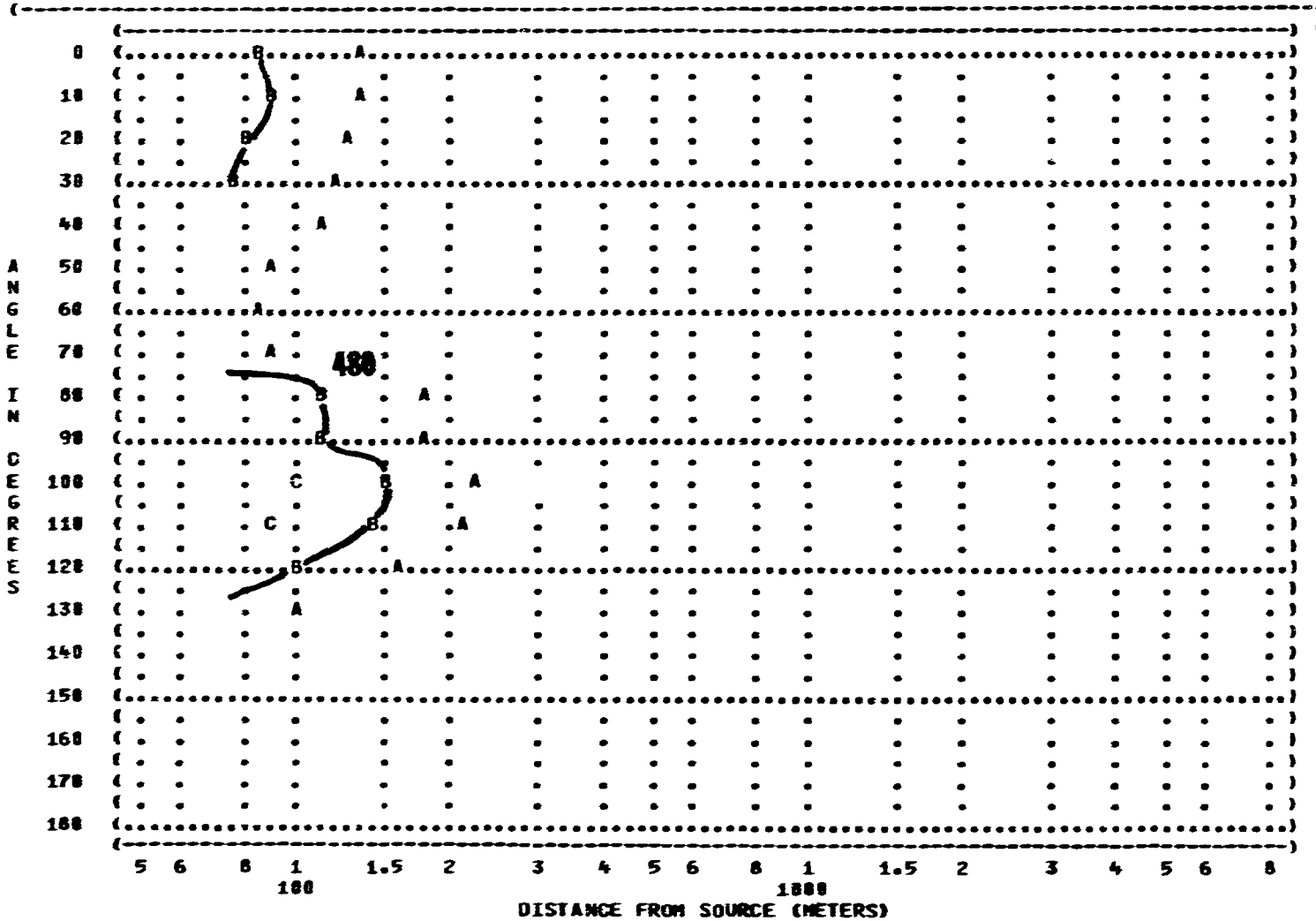


FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
AMERICAN OPTICAL 1780 EAR MUFFS

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 84
08 MAY 75
PAGE 9

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	MIN
A	960
B	480

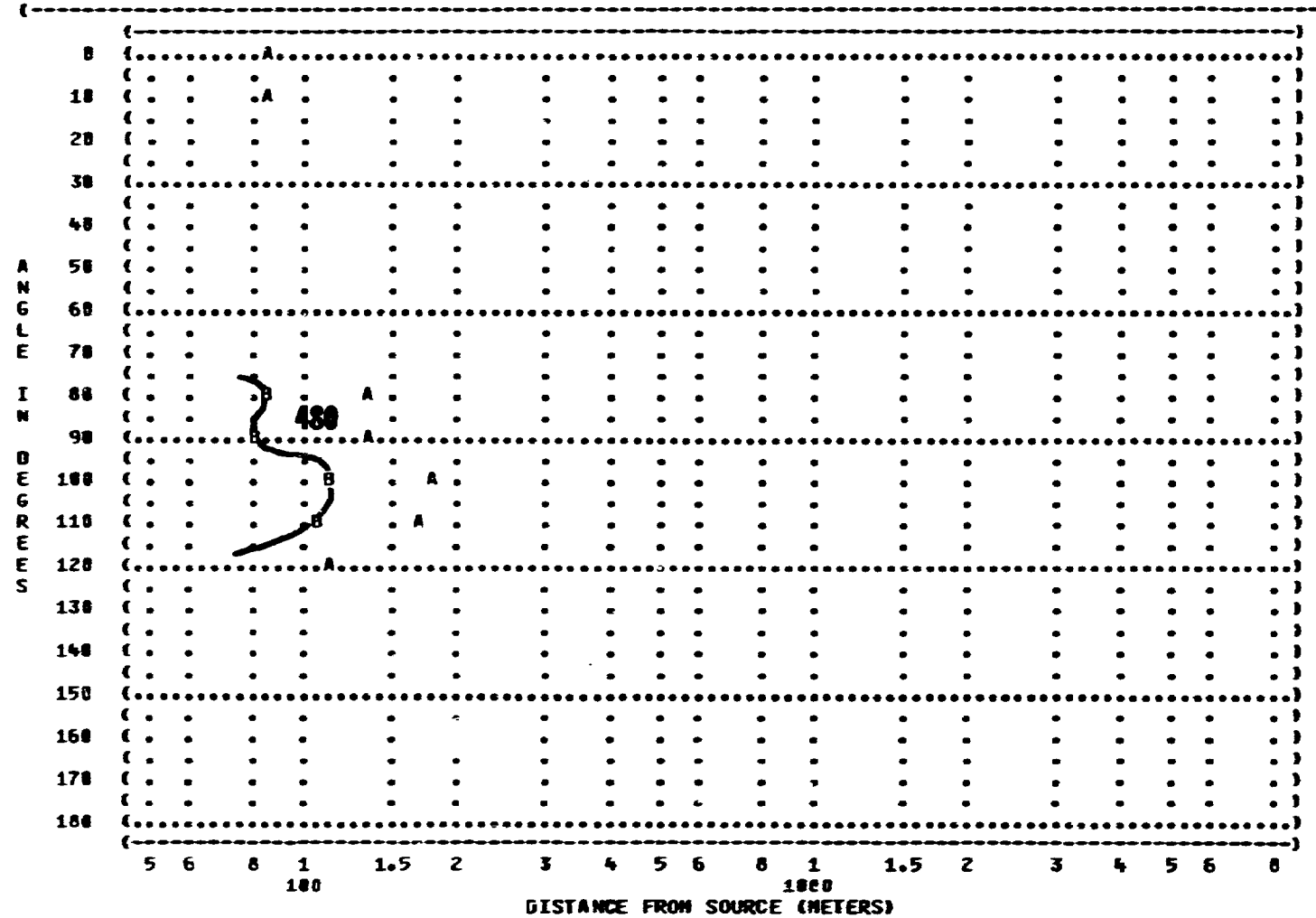


FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
V-51R EAR PLUGS

IDENTIFICATION:
ONEGA 1.4
TEST 75-002-041
RUN 84
08 MAY 75
PAGE 18

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-18 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 78 %

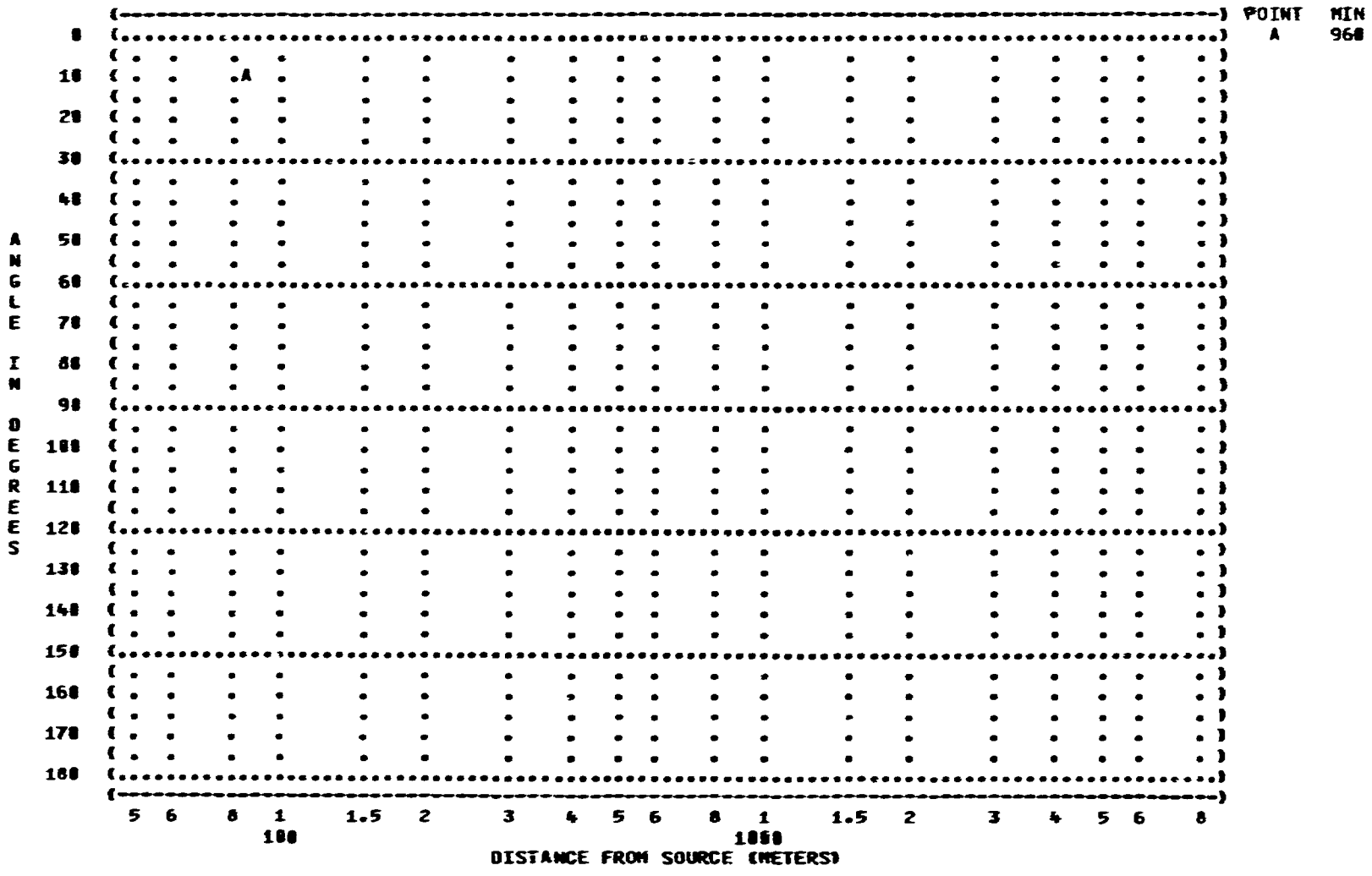


FIGURE 9 MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
COMFIT TRIPLE FLANGE EAR PLUGS

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 11

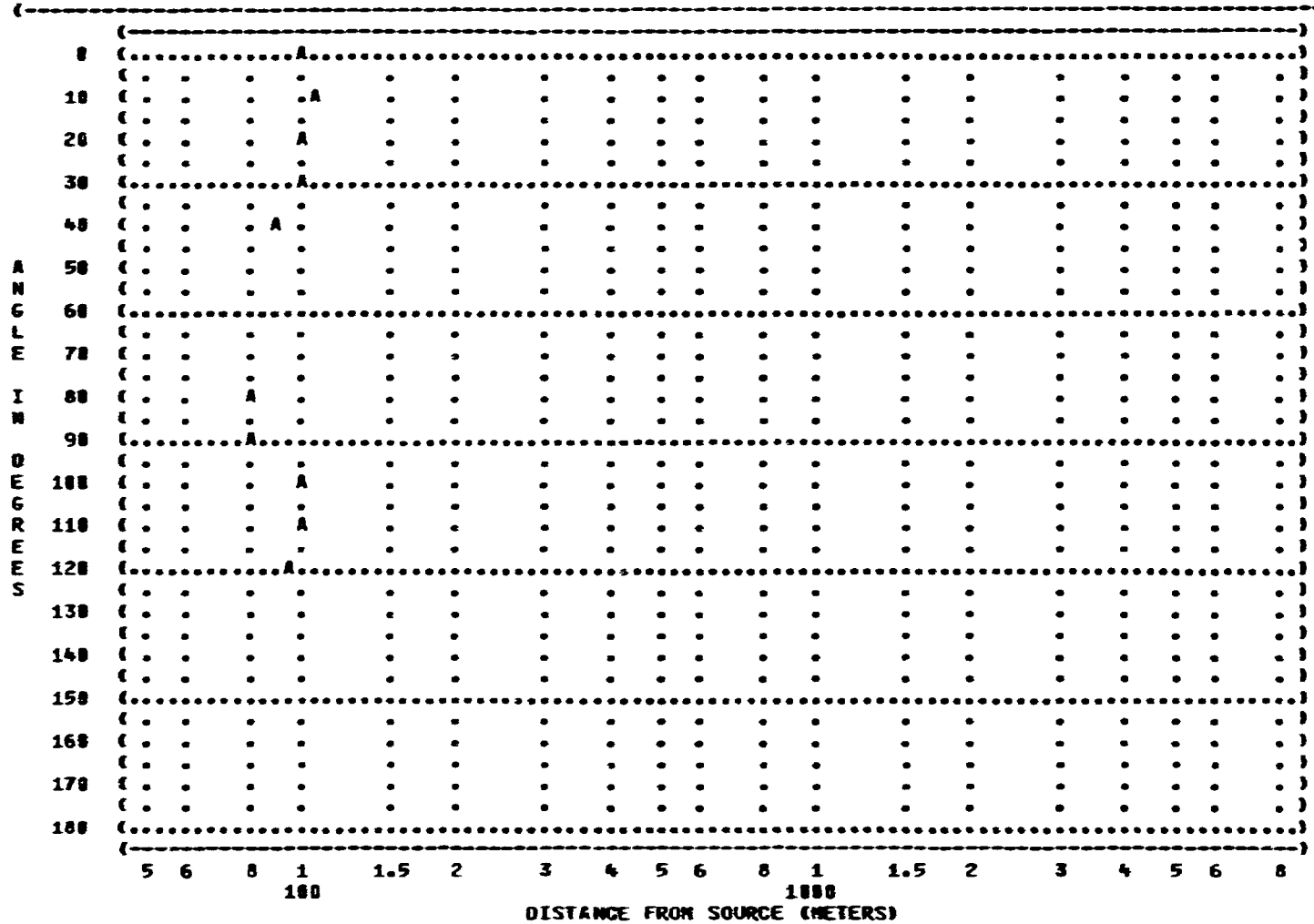


FIGURE: 9

MAXIMUM PERMISSIBLE TIME (T) FOR ONE EXPOSURE PER DAY (AFR 161-35, JULY 73)
EQUAL TIME CONTOURS (MINUTES)
H-133 GROUND COMMUNICATION UNIT

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 84
08 MAY 75
PAGE 12

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT A MIN 960

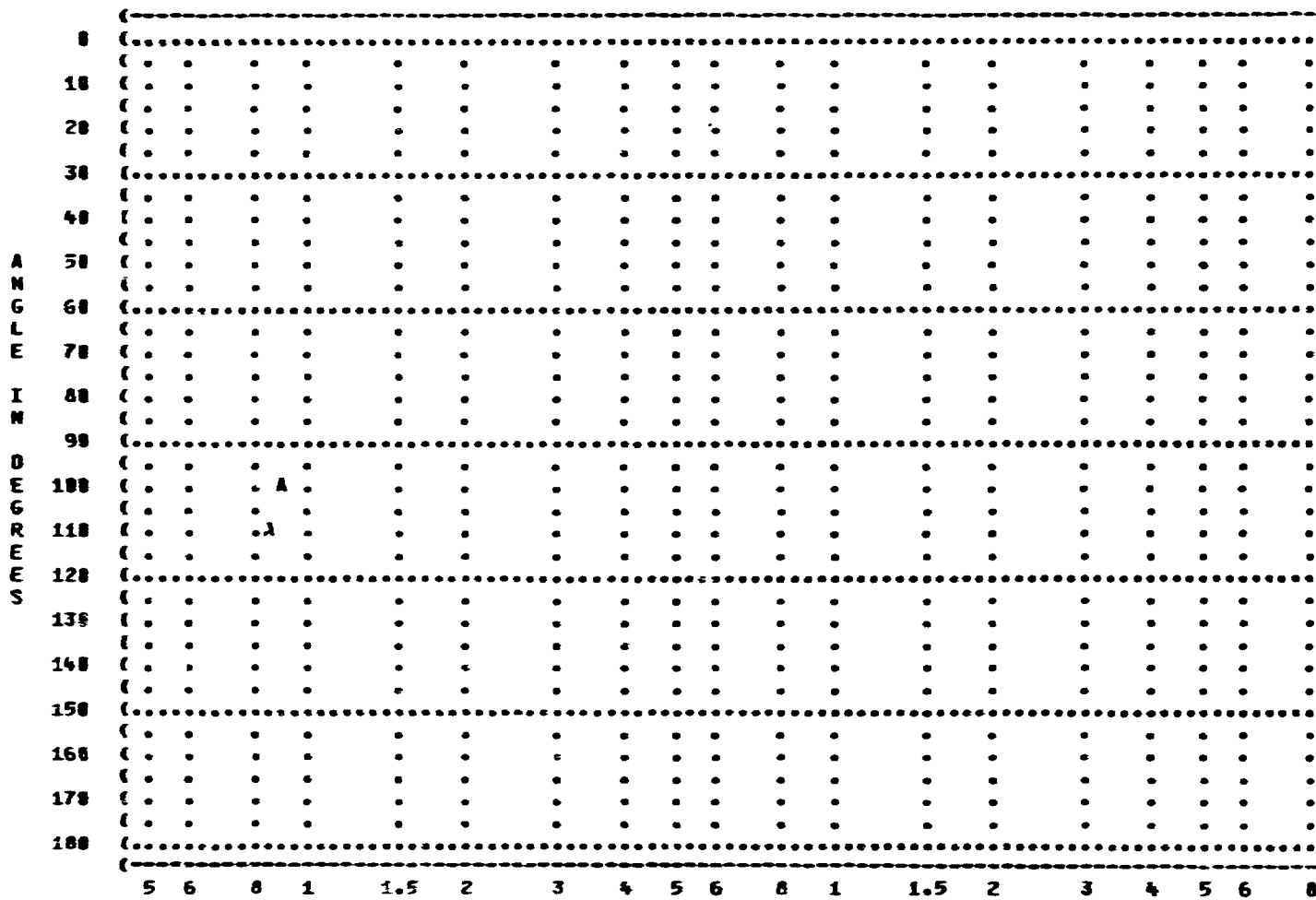


FIGURE: 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 18

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
17% ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70

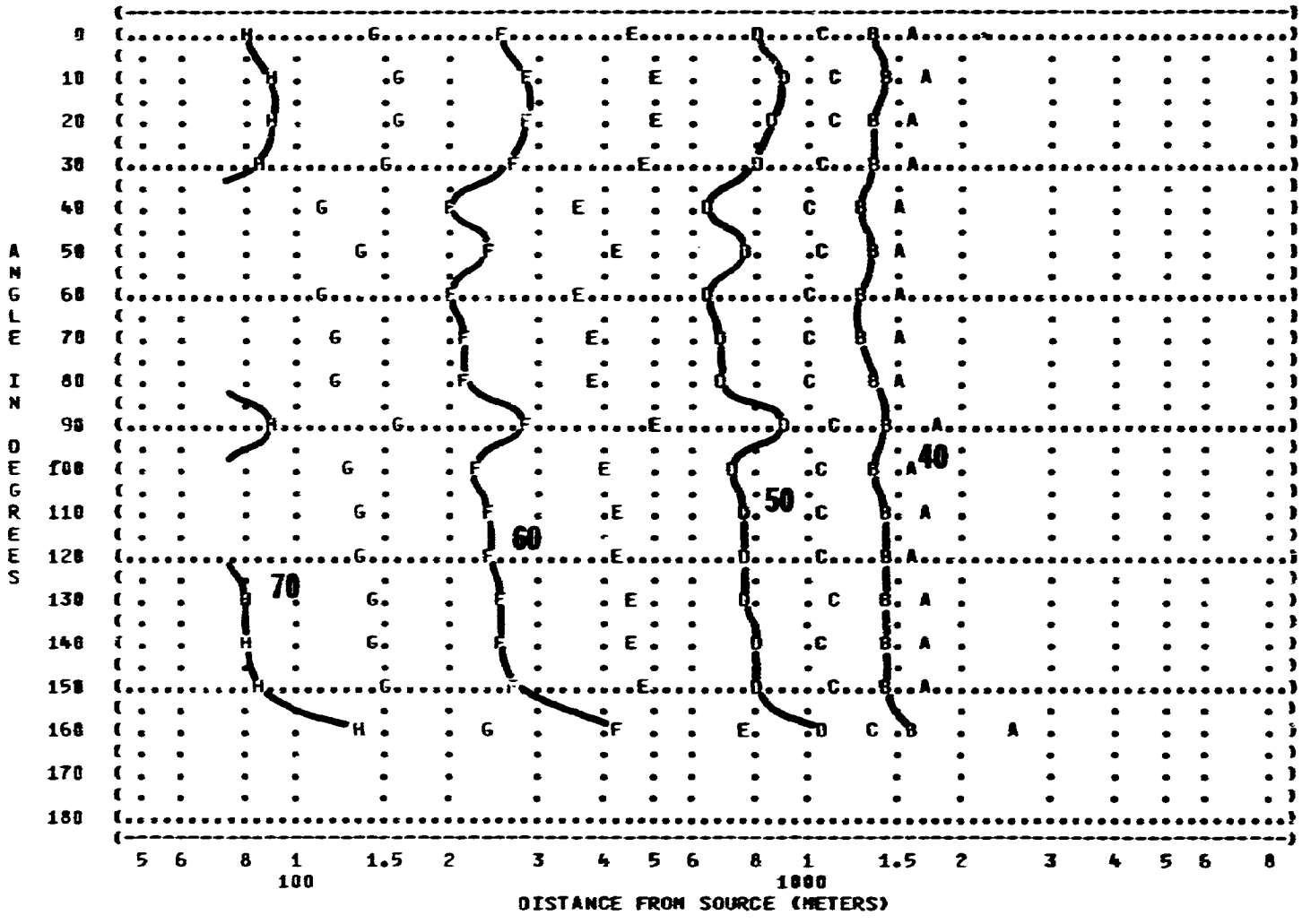


FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-041 RUN 01 08 MAY 75 PAGE 19

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT; T56-A-10 ENGINE; FAR FIELD NOISE

OPERATION: IDLE POWER; 170 ENGINE SHP; INBOARD ENGINES

METEOROLOGY: TEMP = 15 C; BAR PRESS = .760 M HG; REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80

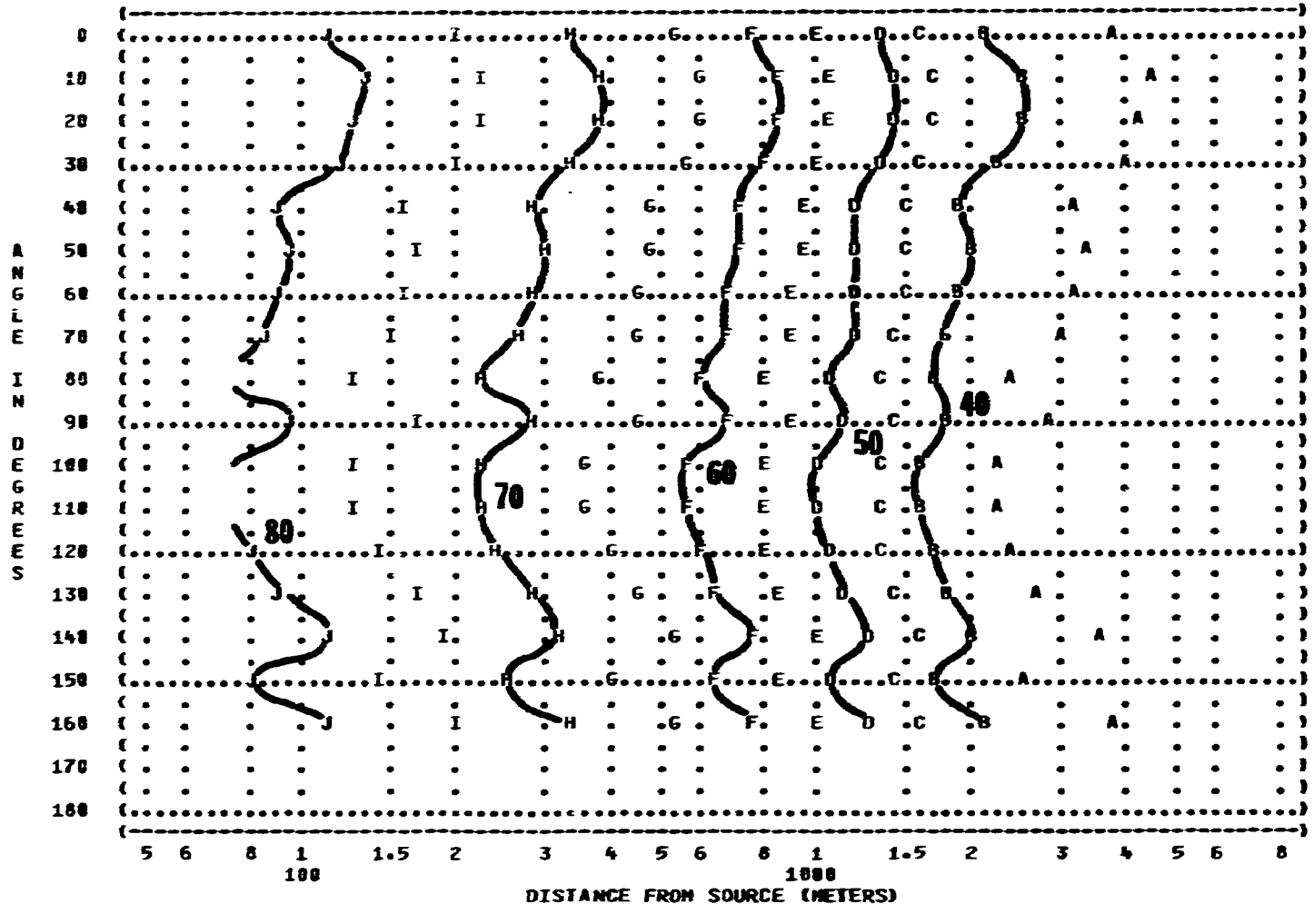


FIGURE 10 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
125 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 20

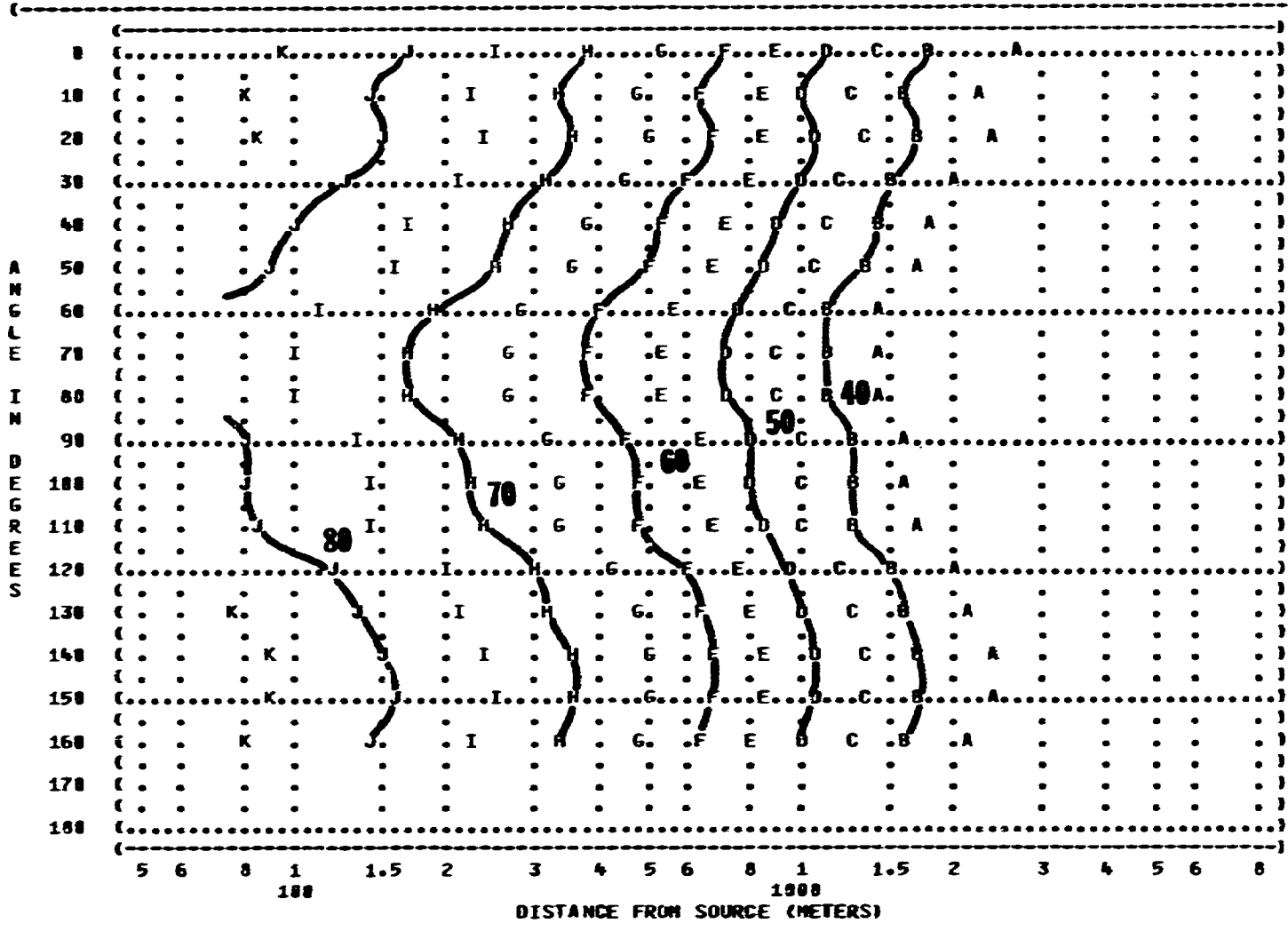


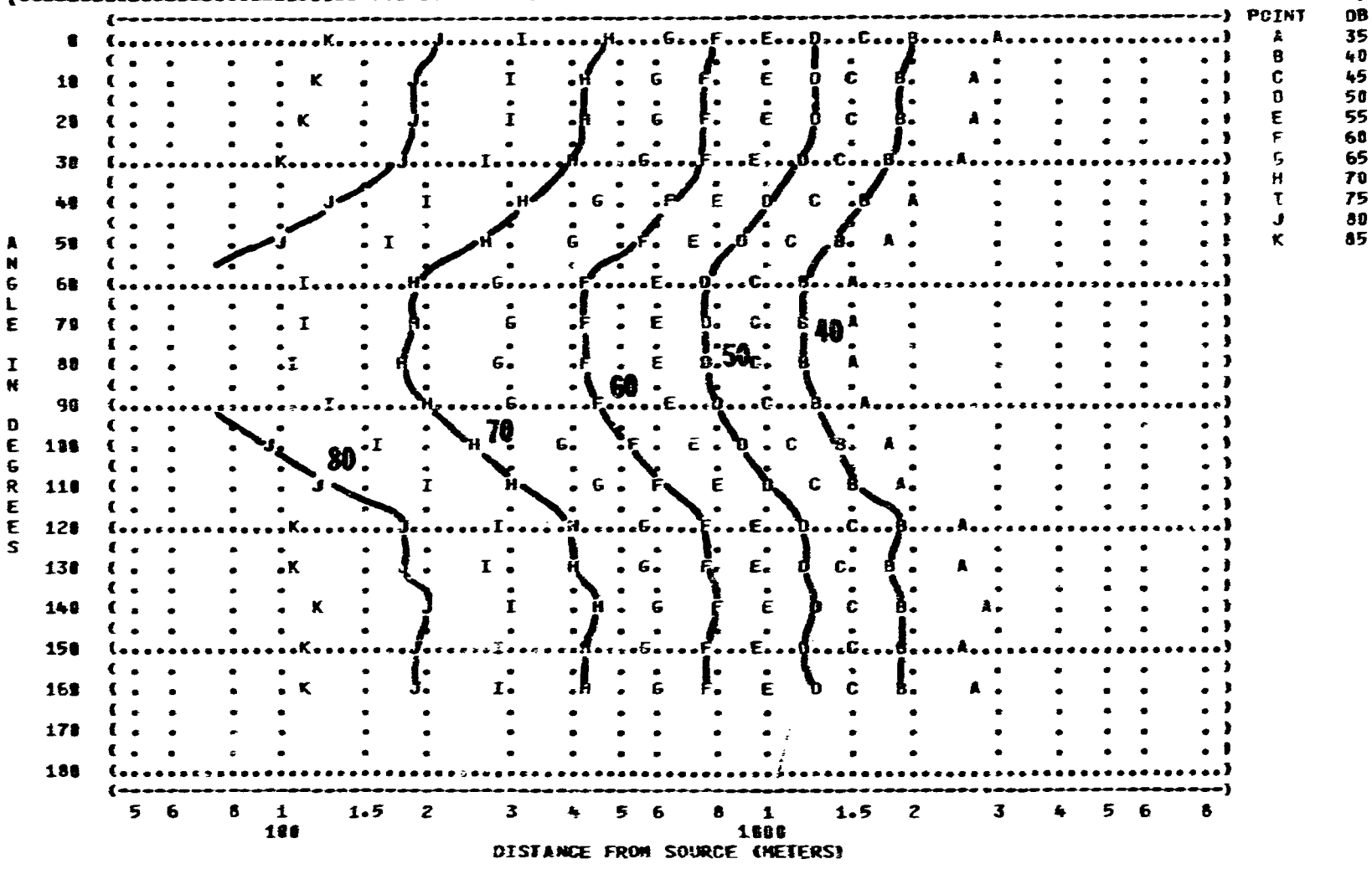
FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
17% ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 21



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE: 10

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 22

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

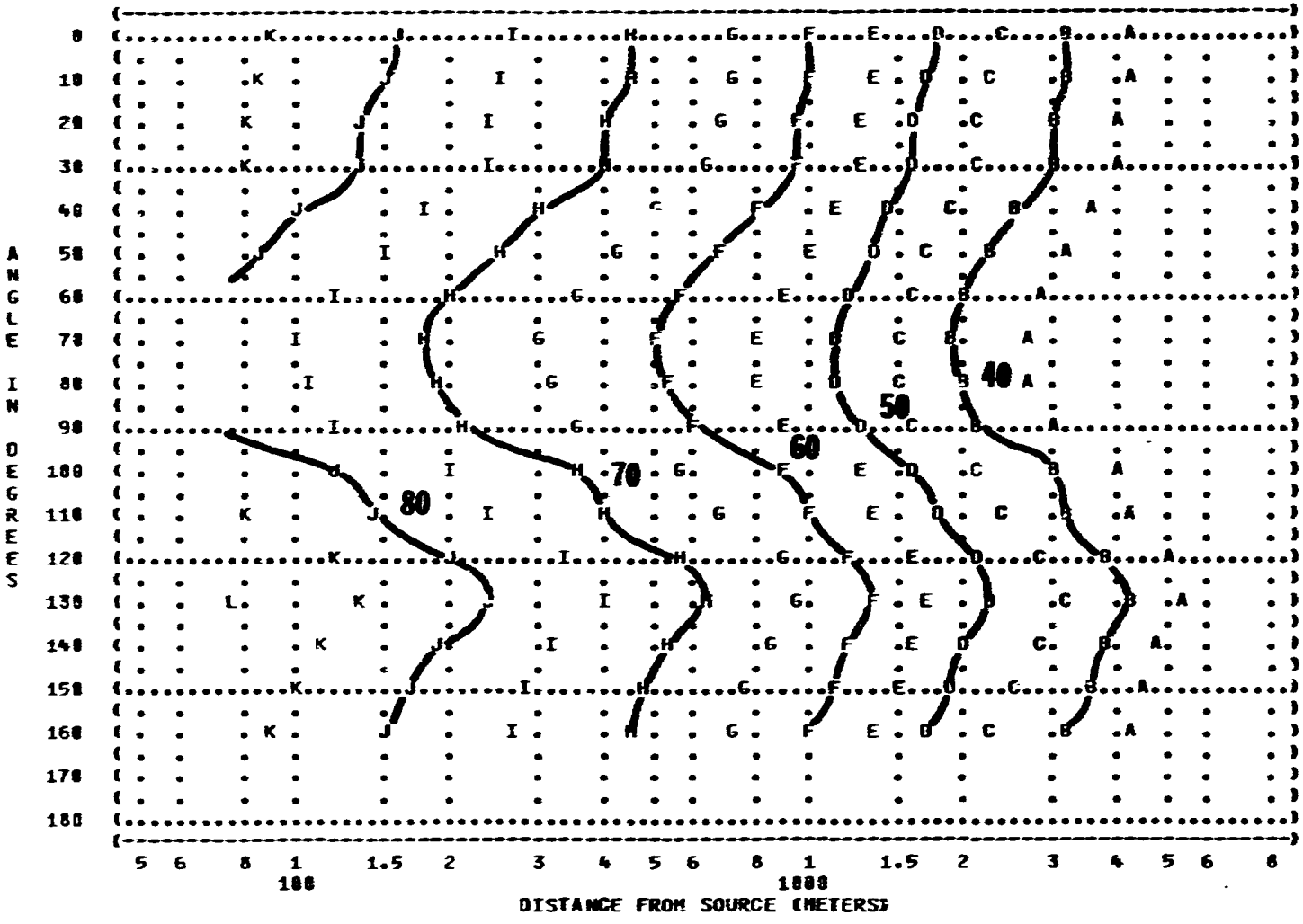


FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-041
RUN 01

08 MAY 75

PAGE 23

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

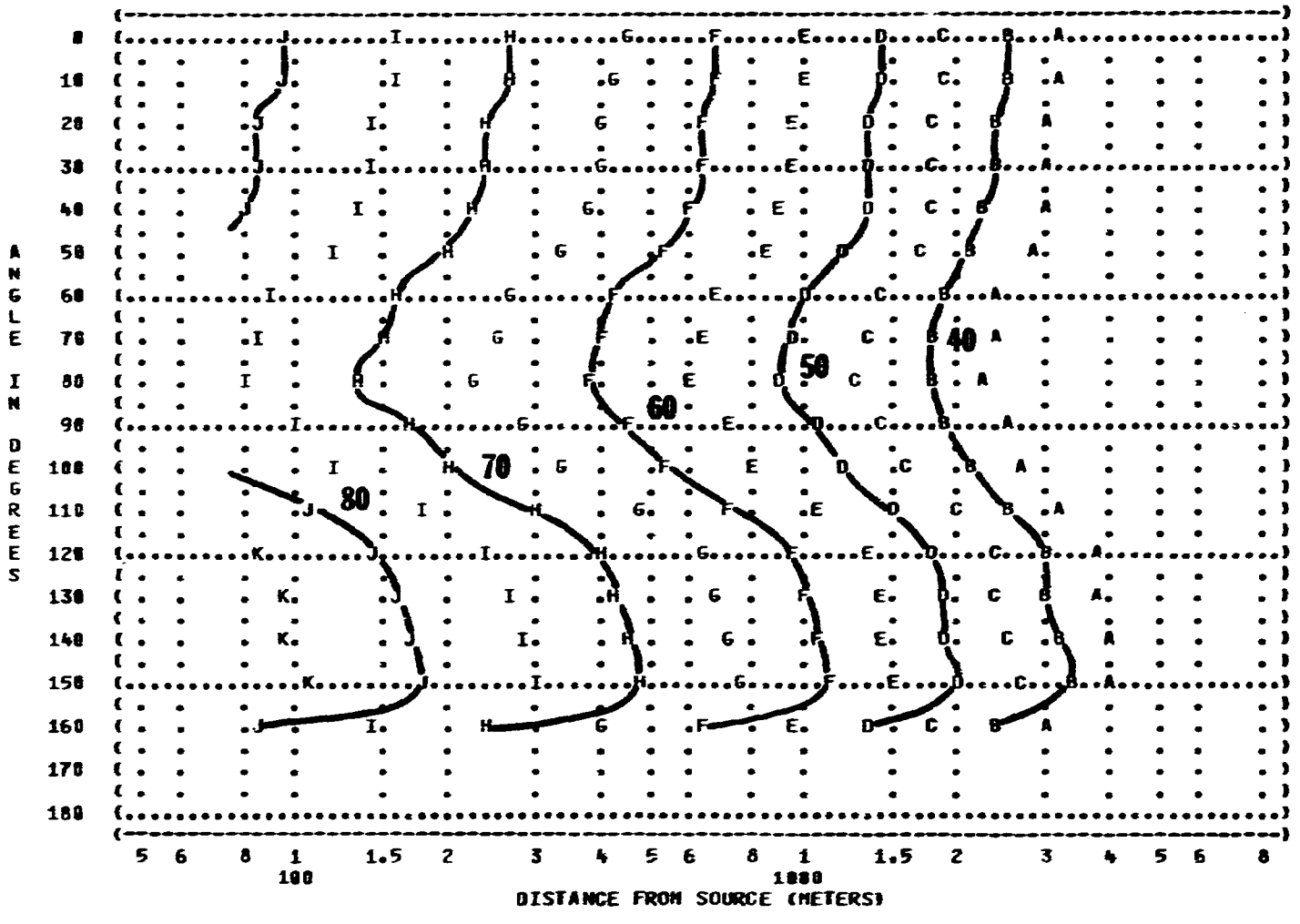


FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .768 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
06 MAY 75
PAGE 24

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

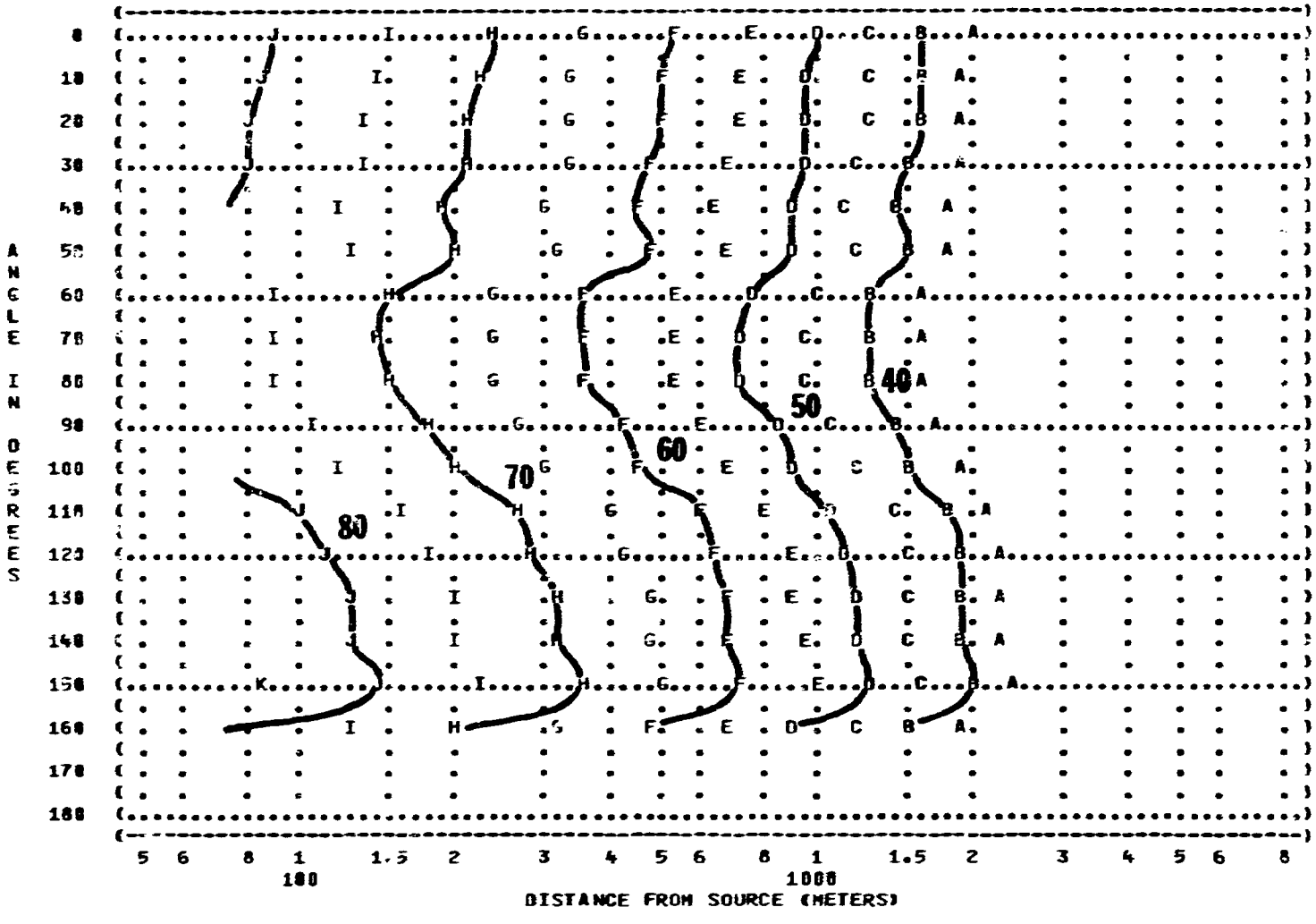


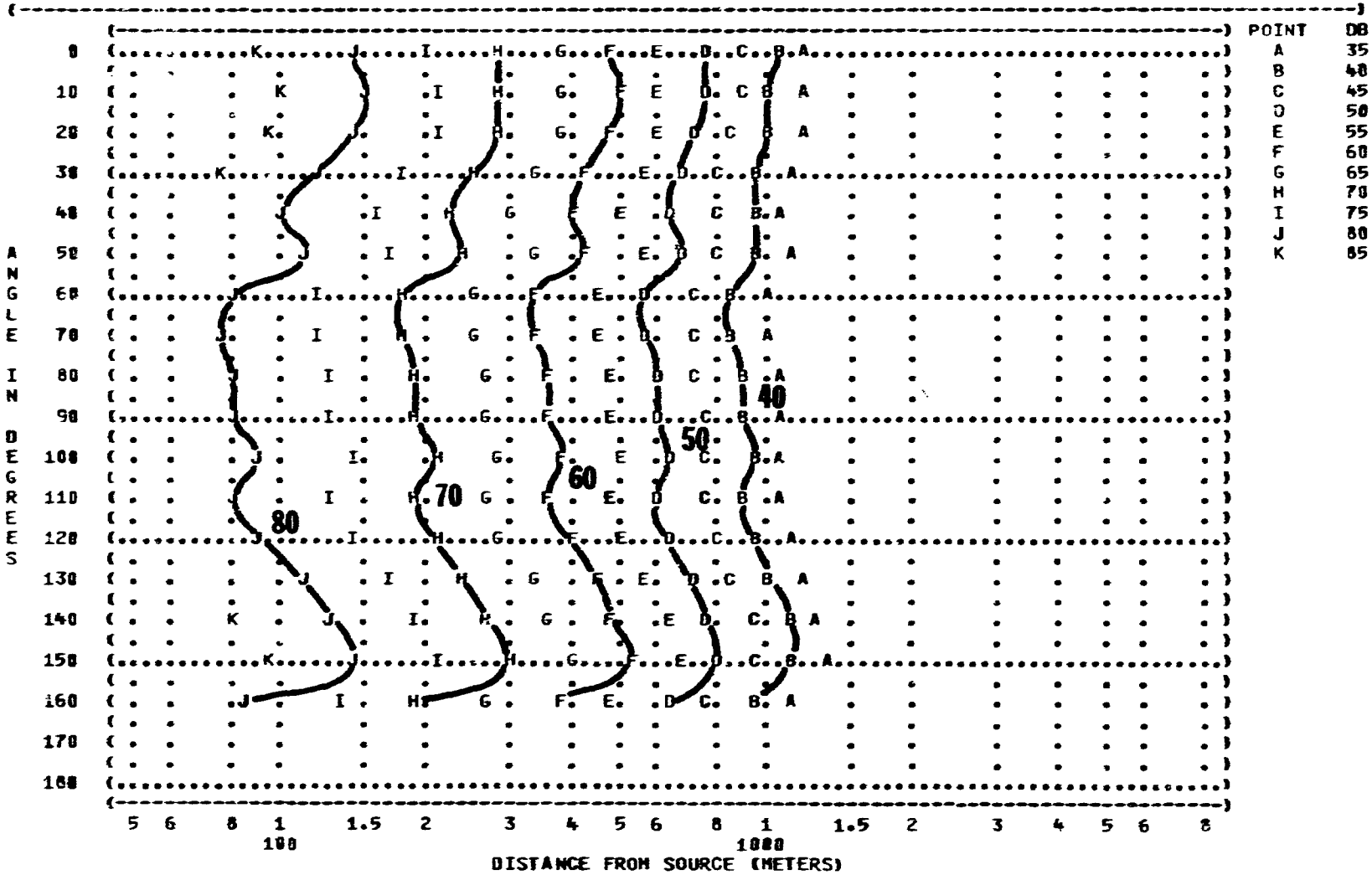
FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 4000 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-082-041 RUN 01 08 MAY 75 PAGE 25

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT T56-A-10 ENGINE FAR FIELD NOISE

OPERATION: IDLE POWER 170 ENGINE SHP INBOARD ENGINES

METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

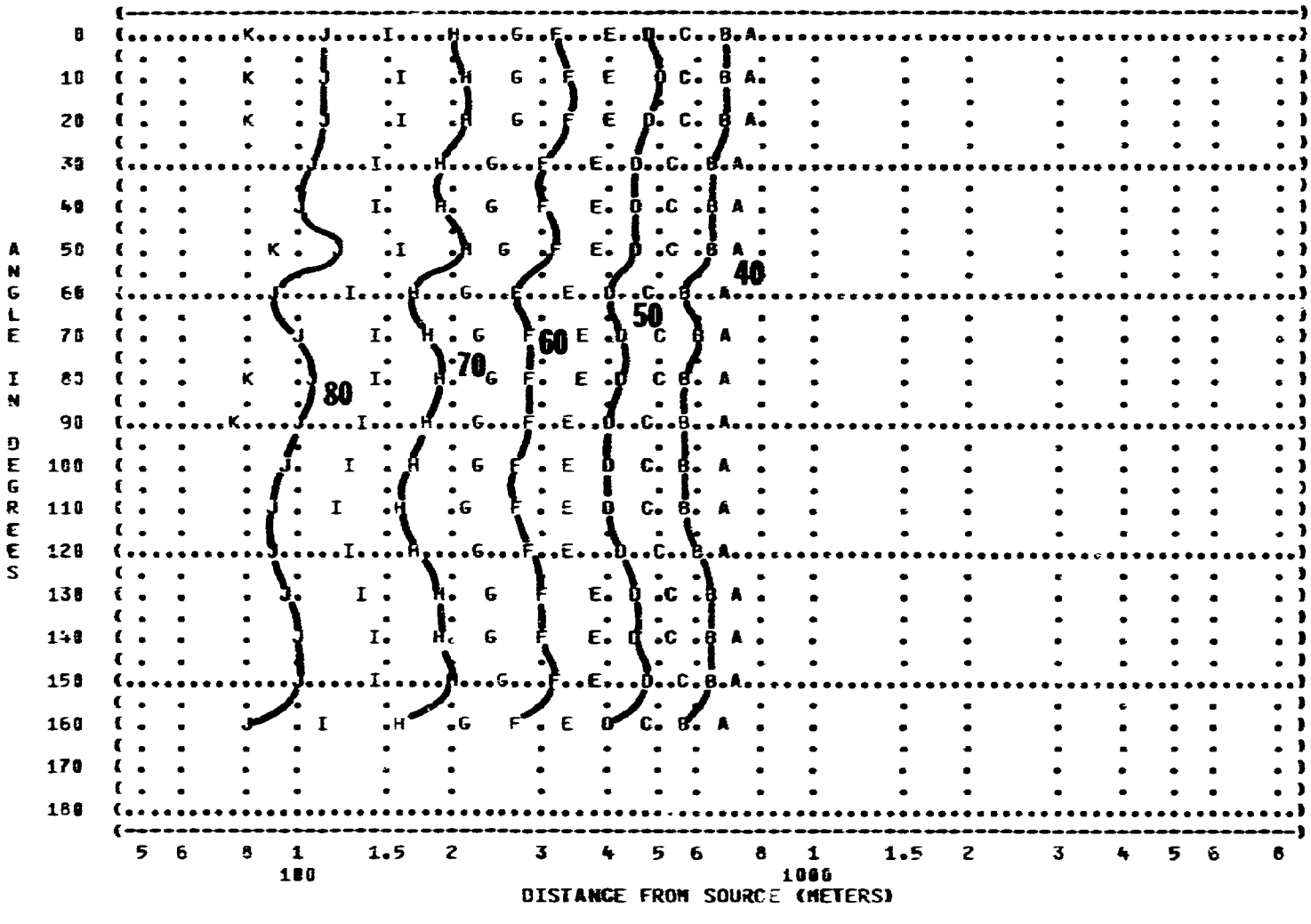
FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
170 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 01
08 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE: 10

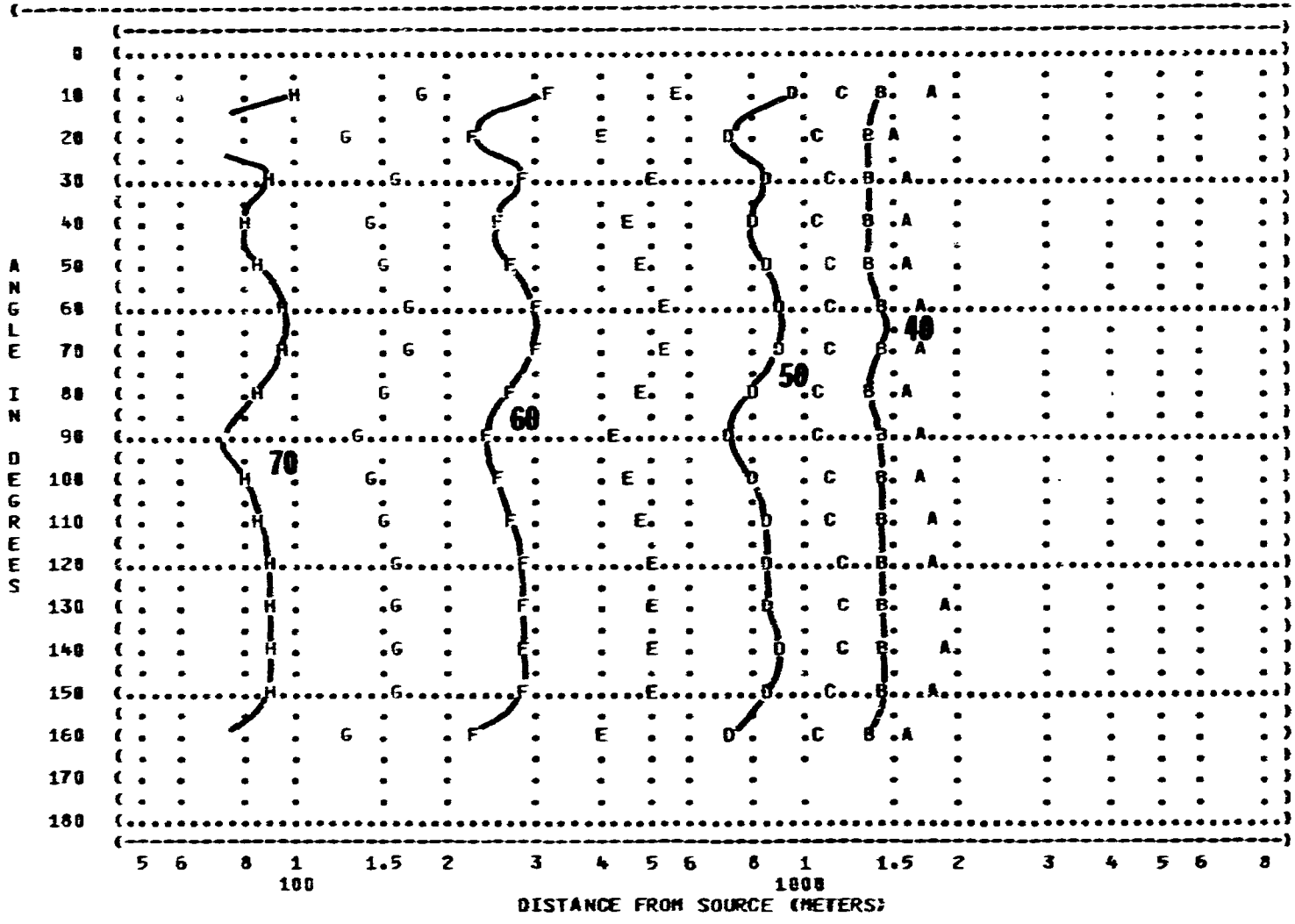
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 18



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70

FIGURE: 10

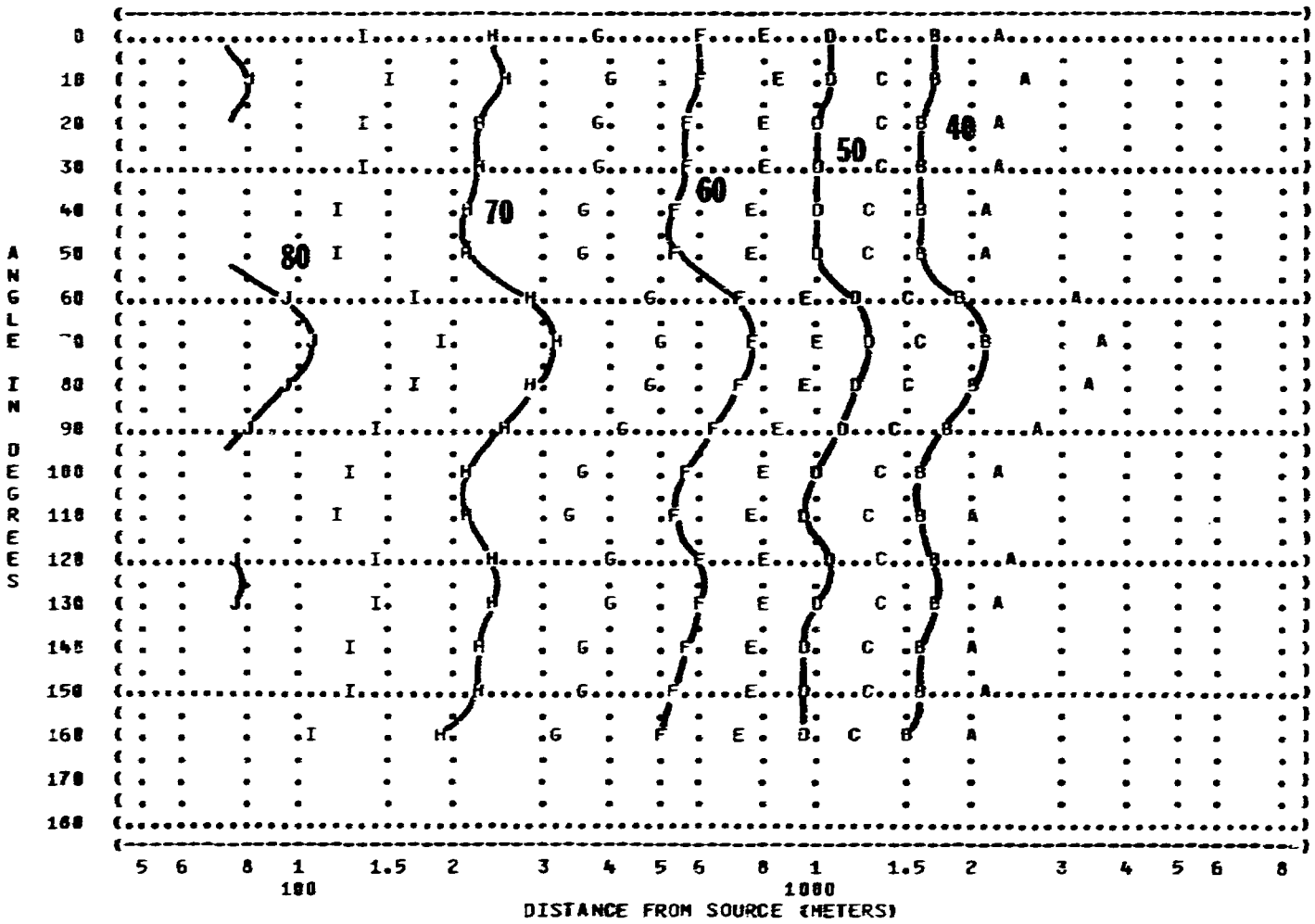
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
63 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 19

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80

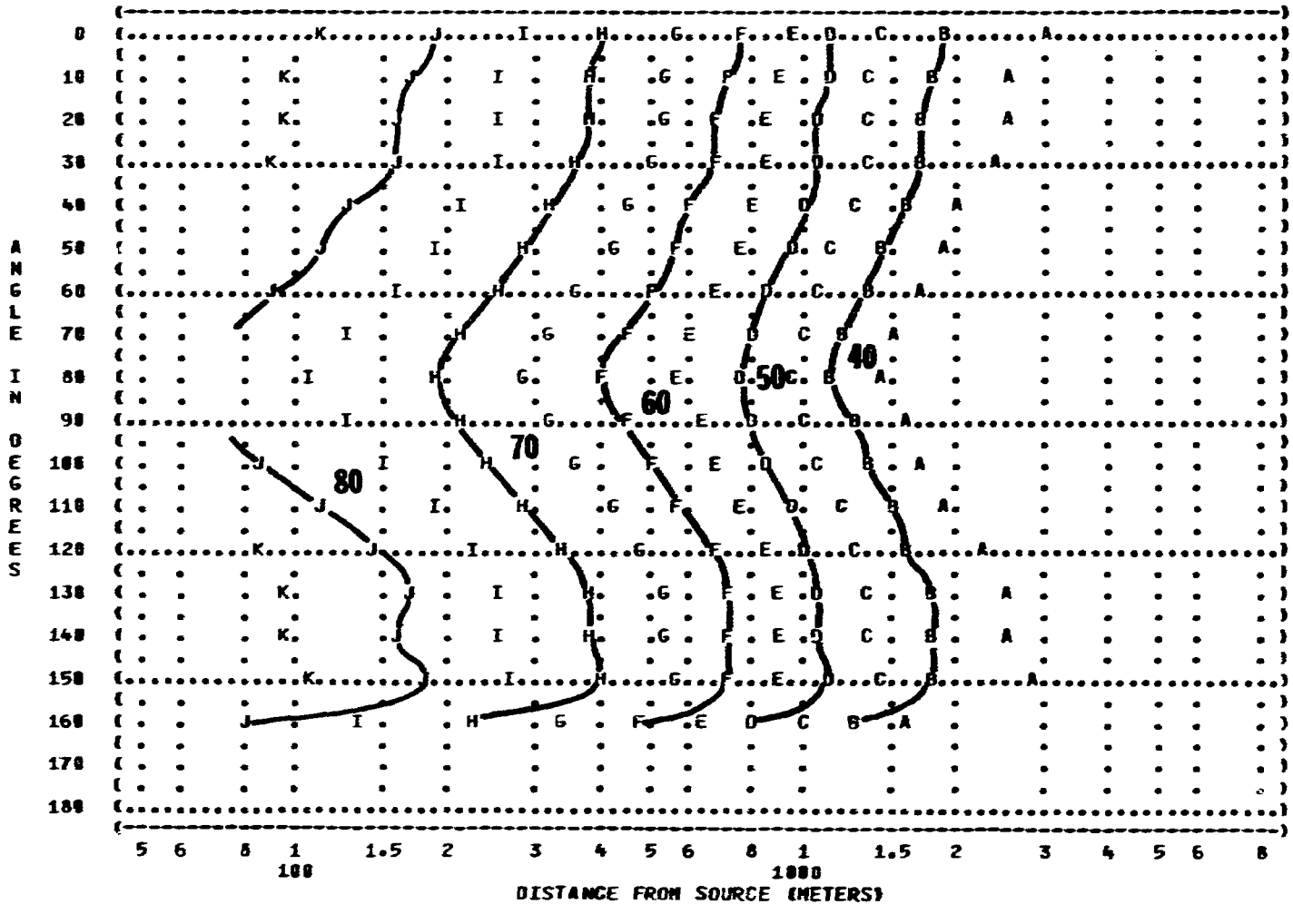
FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-041 RUN 02 08 MAY 75 PAGE 20

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT; T56-A-10 ENGINE; FAR FIELD NOISE

OPERATION: IDLE POWER; 113 ENGINE SHP; OUTBOARD ENGINES

METEOROLOGY: TEMP = 15 C; BAR PRESS = .760 M HG; REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

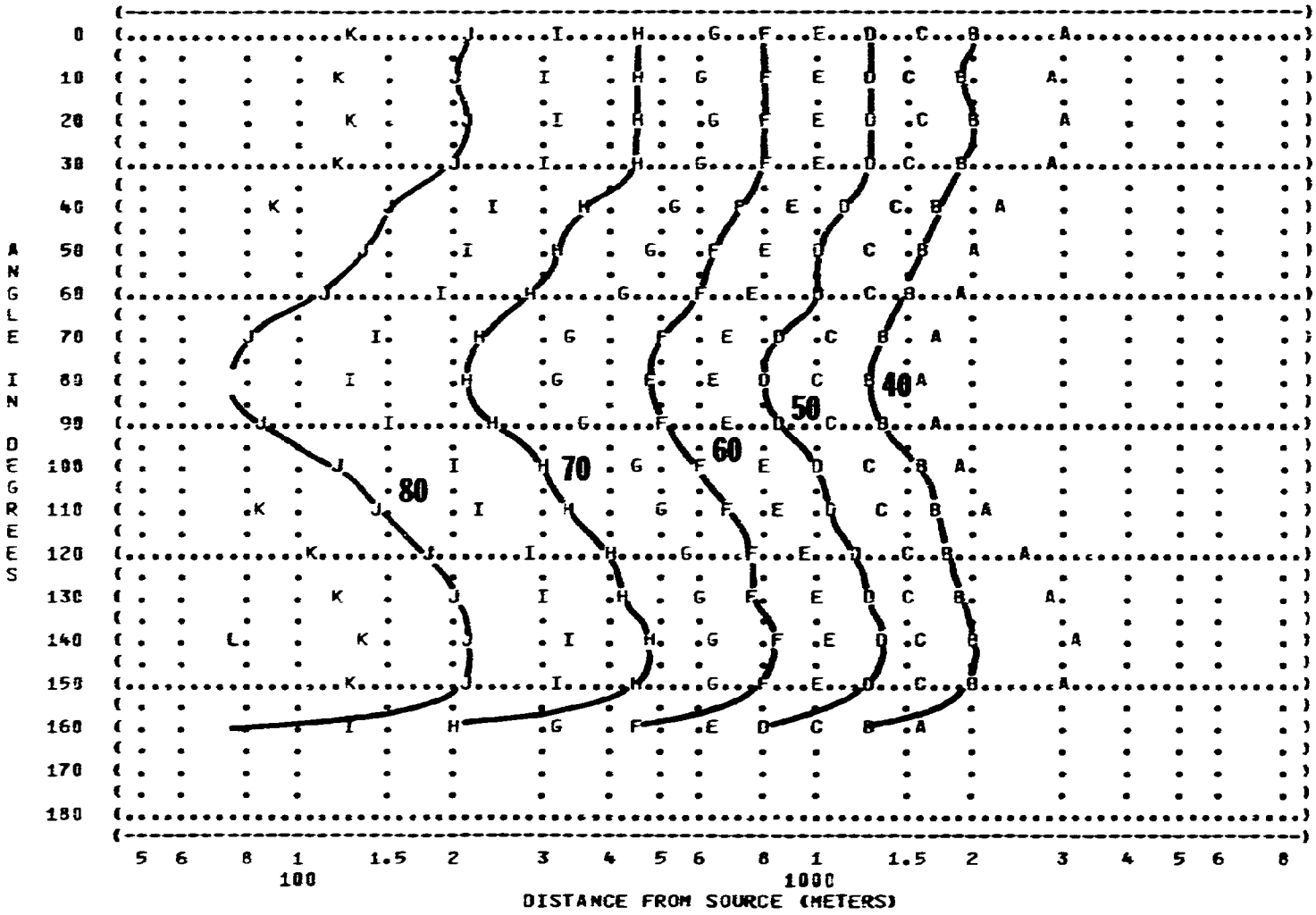
FIGURE: 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 500 HZ OCTAVE BAND

IDENTIFICATION:
ONEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 22

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATIONS:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

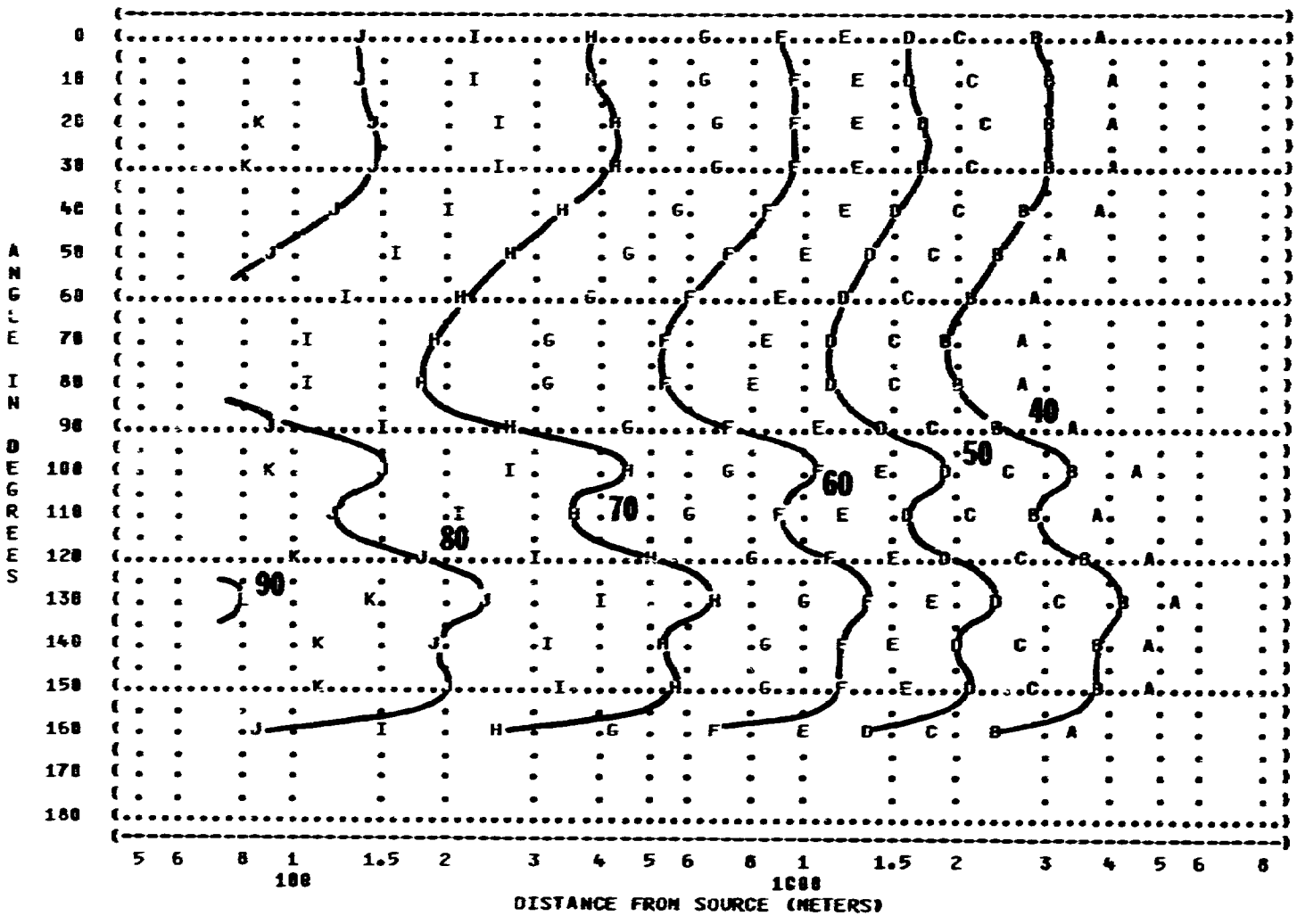


FIGURE: 10

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
1000 HZ OCTAVE BAND

IDENTIFICATION:
ONEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 23

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

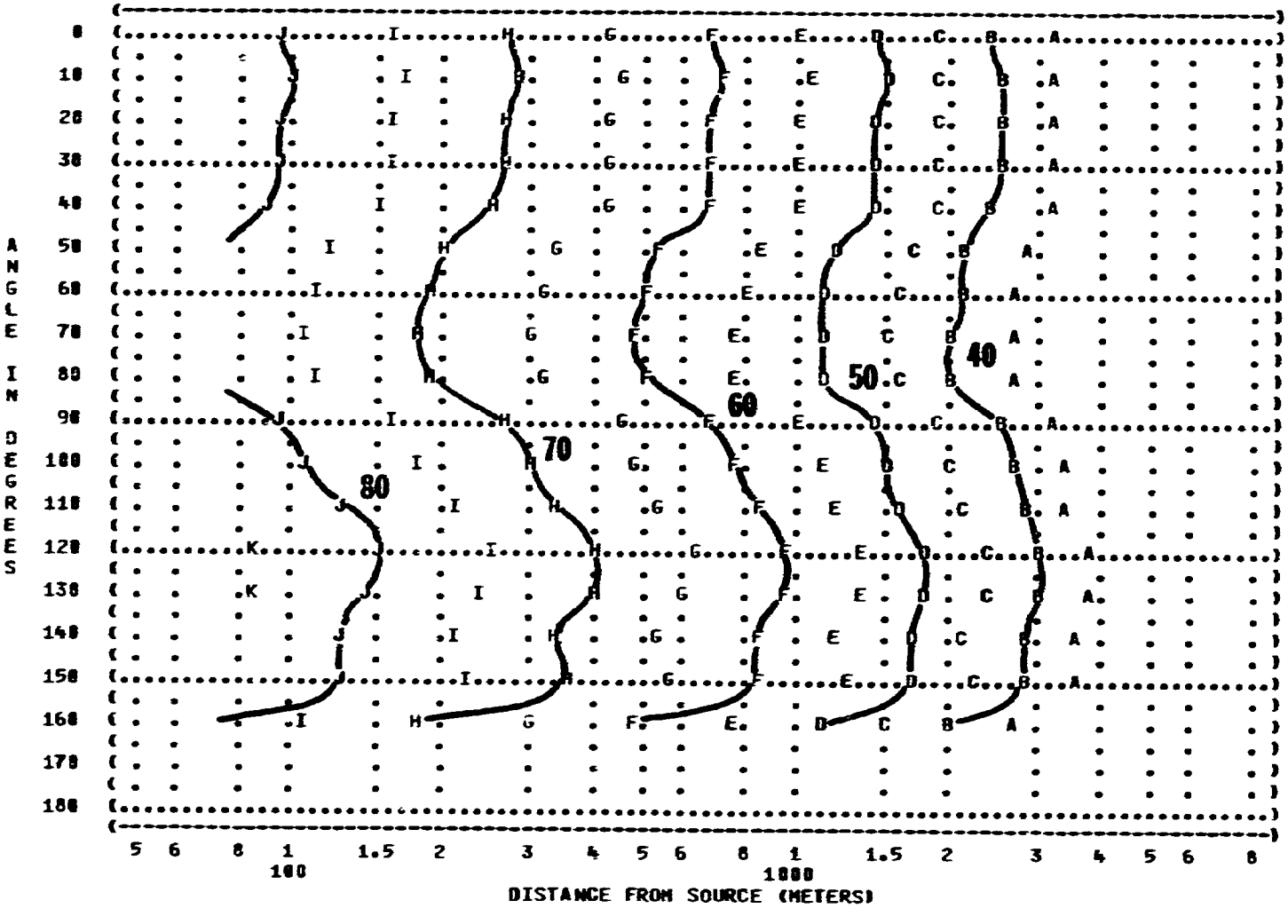


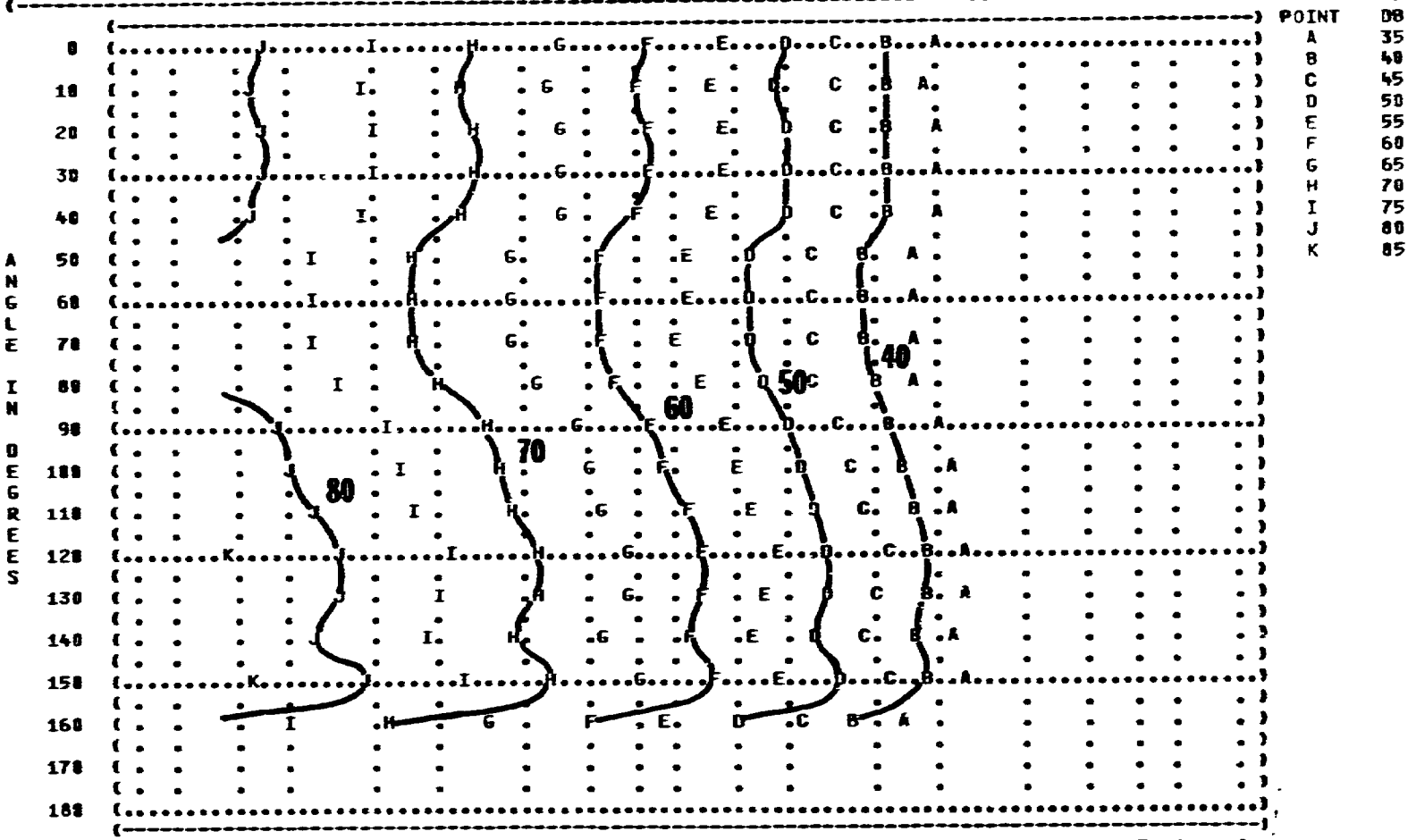
FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 2000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 24

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

FIGURE: 10

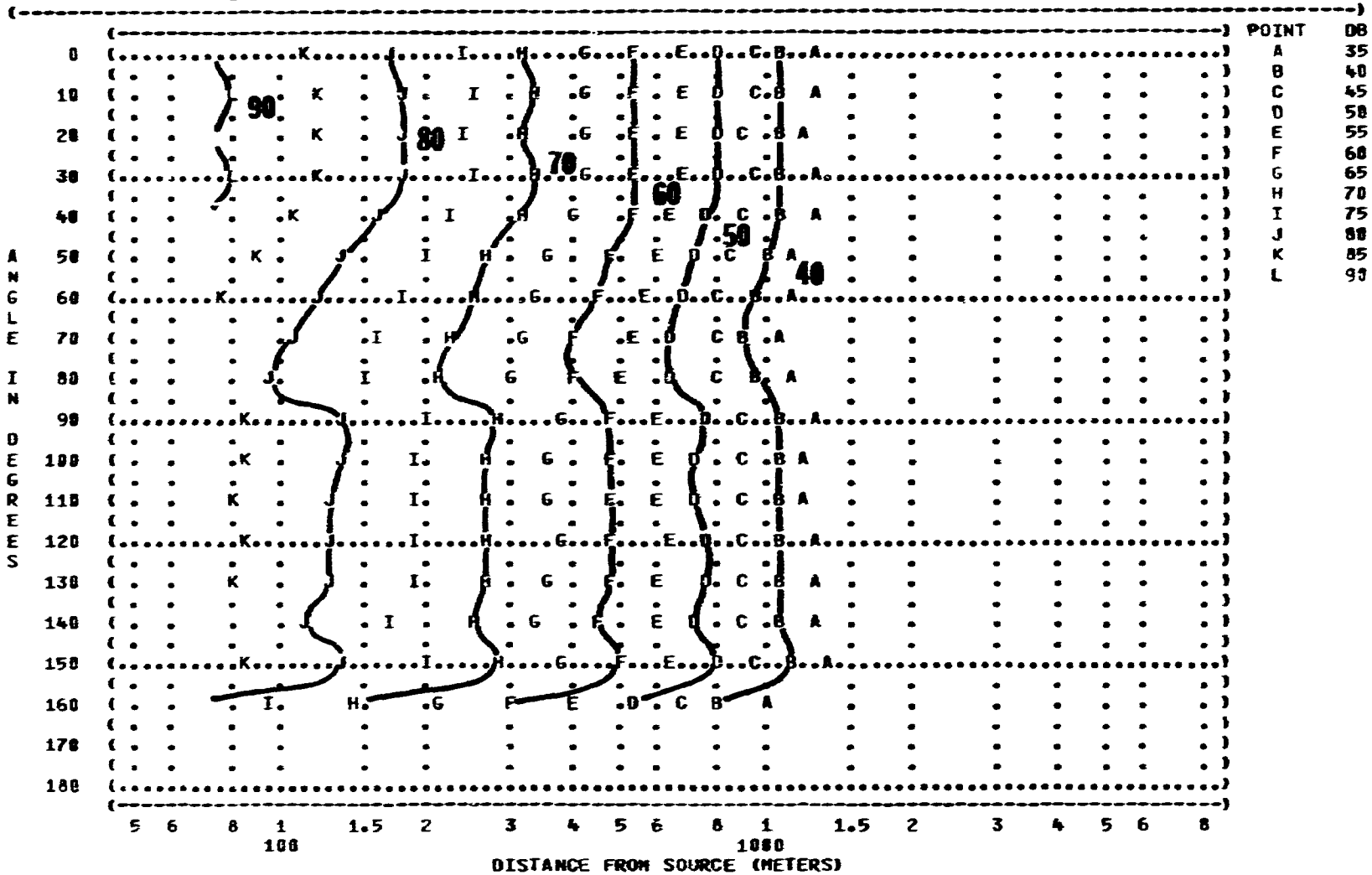
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .766 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 25



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

FIGURE: 10

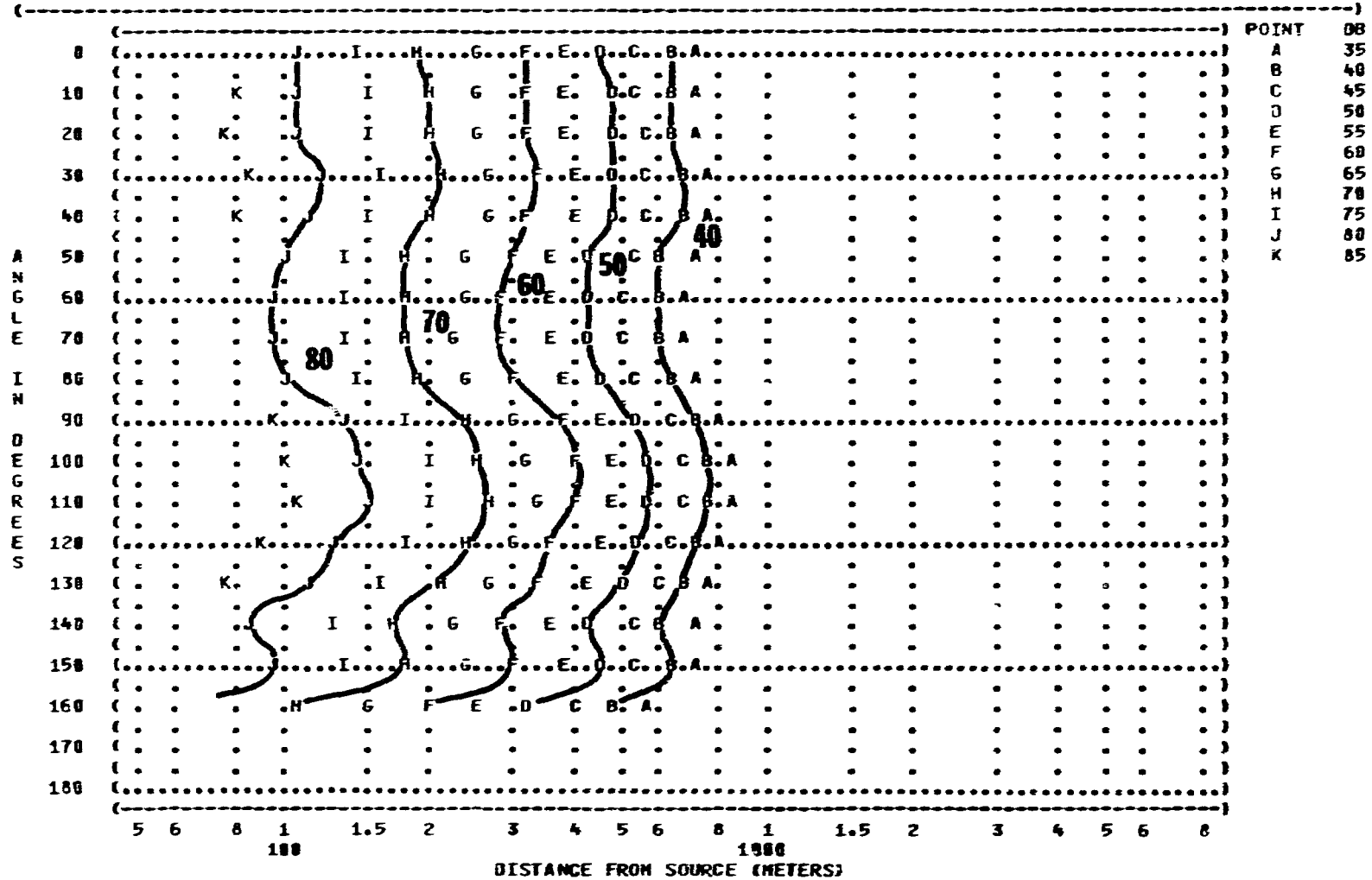
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
IDLE POWER
113 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 02
08 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

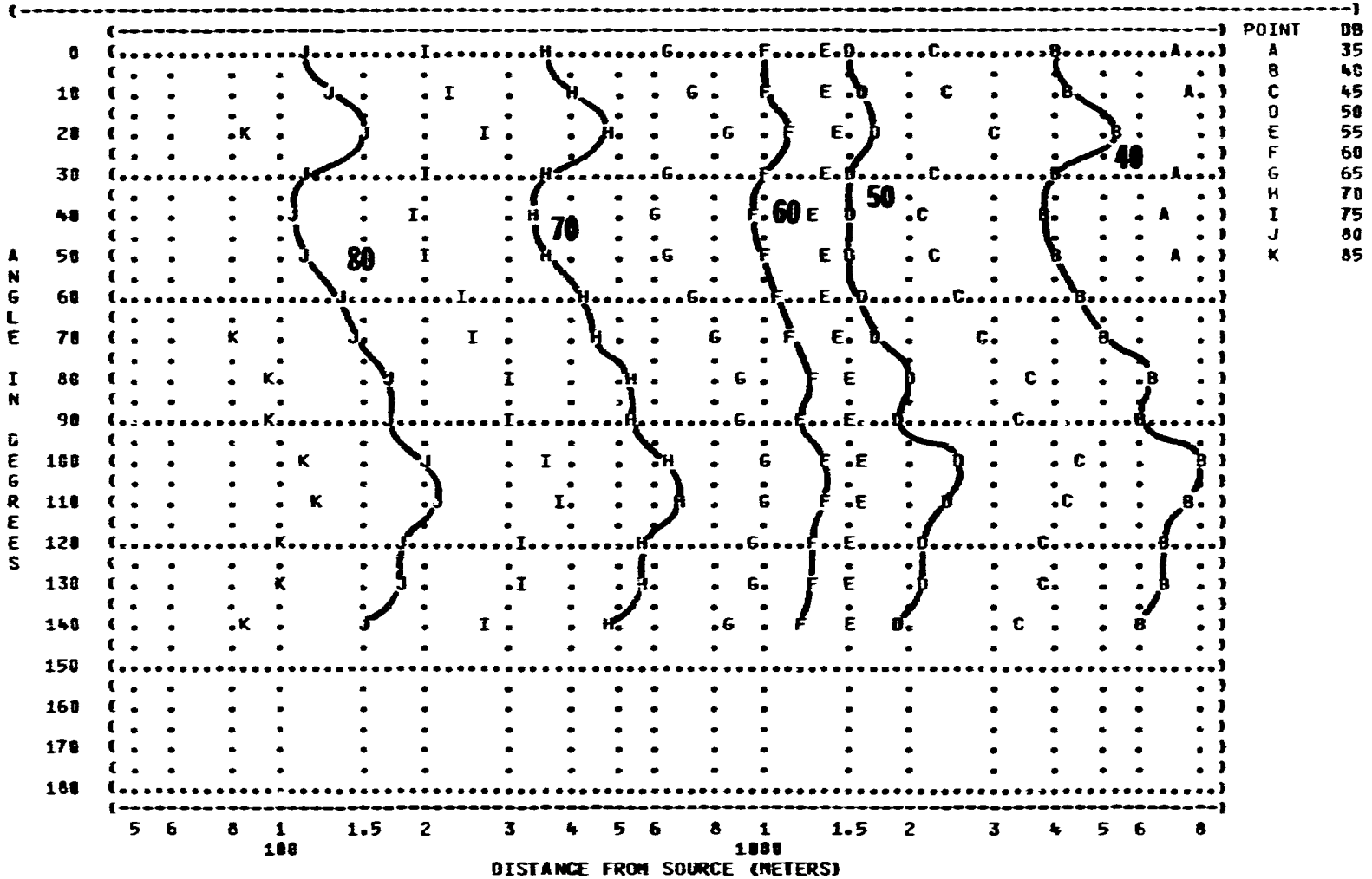
FIGURE 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 31.5 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 18

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

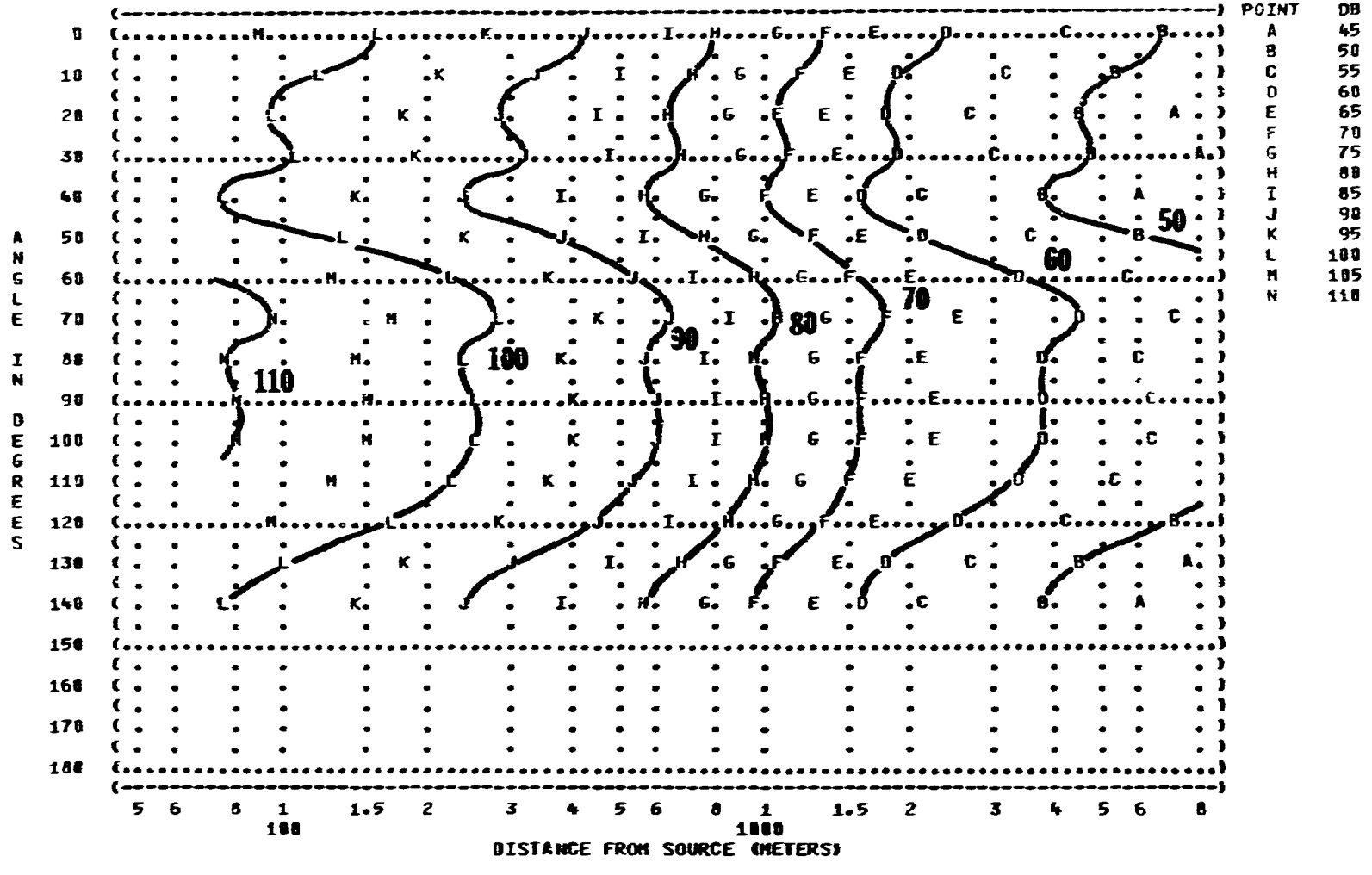
FIGURE: 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

IDENTIFICATION: OMEGA 1.4 TEST 75-002-041 RUN 03 08 MAY 75 PAGE 19

NOISE SOURCE/SUBJECT: P-3A AIRCRAFT T56-A-10 ENGINE FAR FIELD NOISE

OPERATION: MILITARY POWER 3750 ENGINE SHP INBOARD ENGINES

METEOROLOGY: TEMP = 15 C BAR PRESS = .760 M HG REL HUMID = 70 %



POINT	DB
A	45
B	50
C	55
D	60
E	65
F	70
G	75
H	80
I	85
J	90
K	95
L	100
M	105
N	110

FIGURE 10 SOUND PRESSURE LEVEL (SP ?
EQUAL LEVEL CONTOURS (
125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-882-041
RUN 83
08 MAY 75
PAGE 20

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .768 M HG
REL HUMID = 78 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

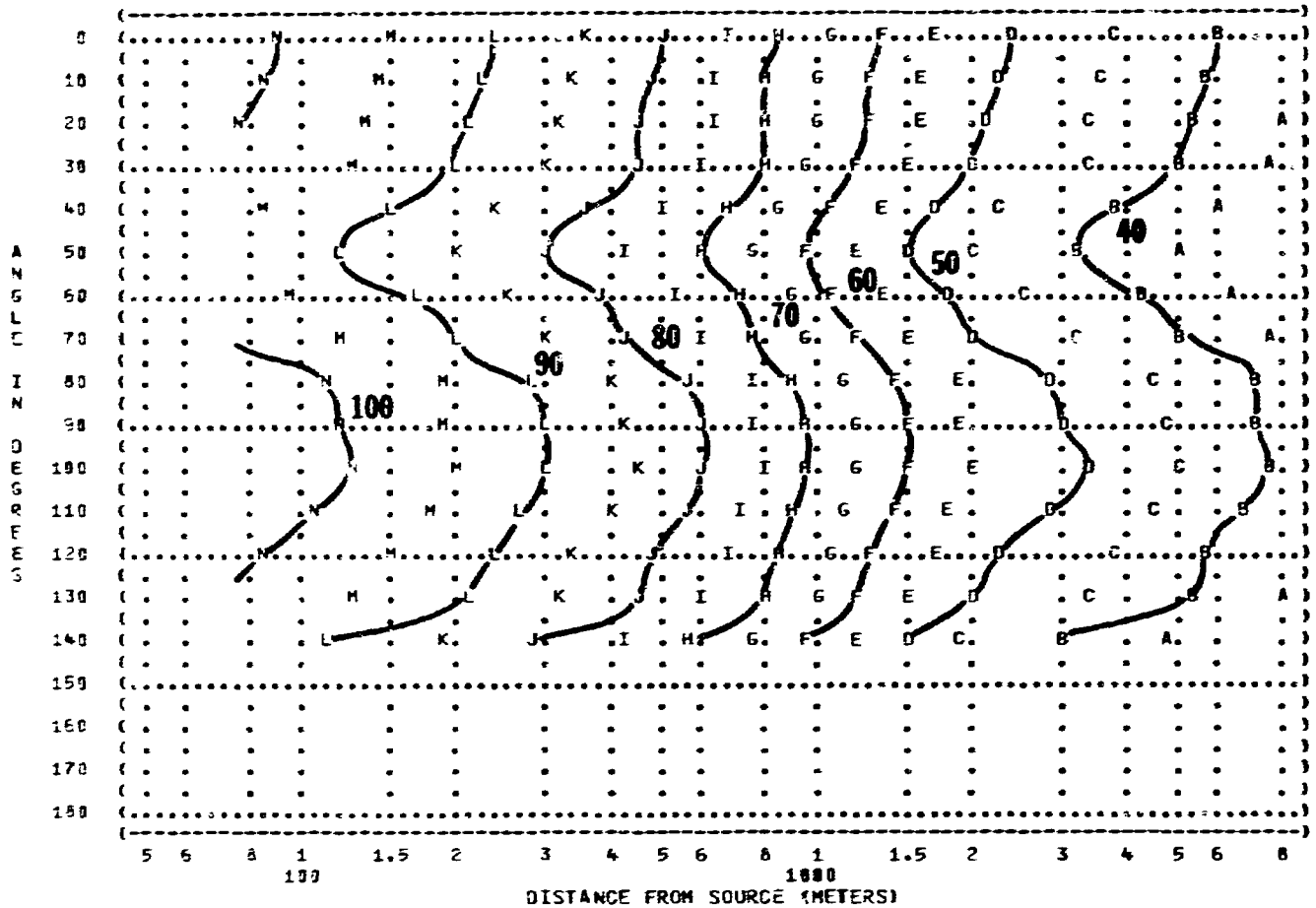


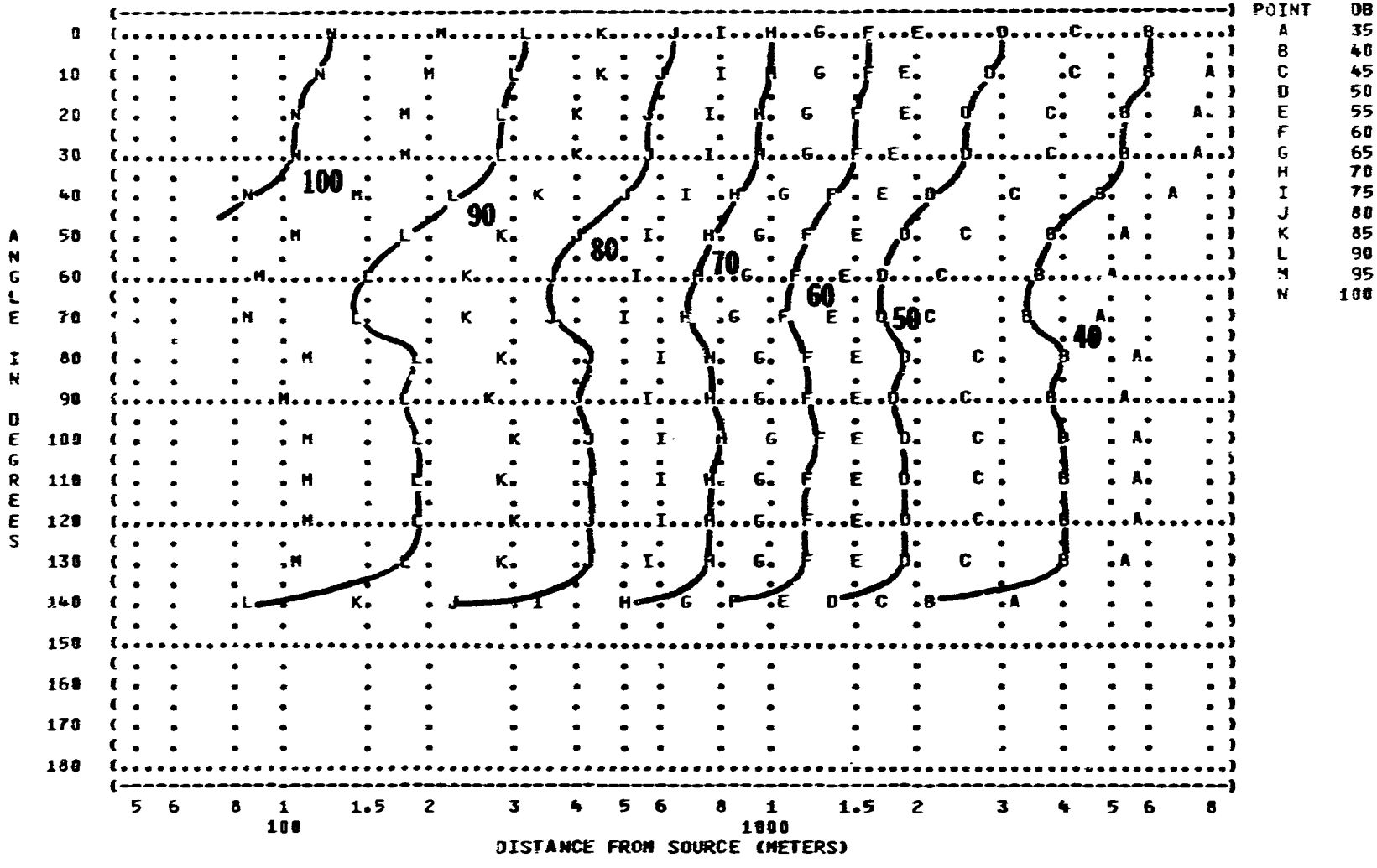
FIGURE: SOUND PRESSURE LEVEL (SPL)
10 EQUAL LEVEL CONTOURS (DB)
250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

FIGURE: 10

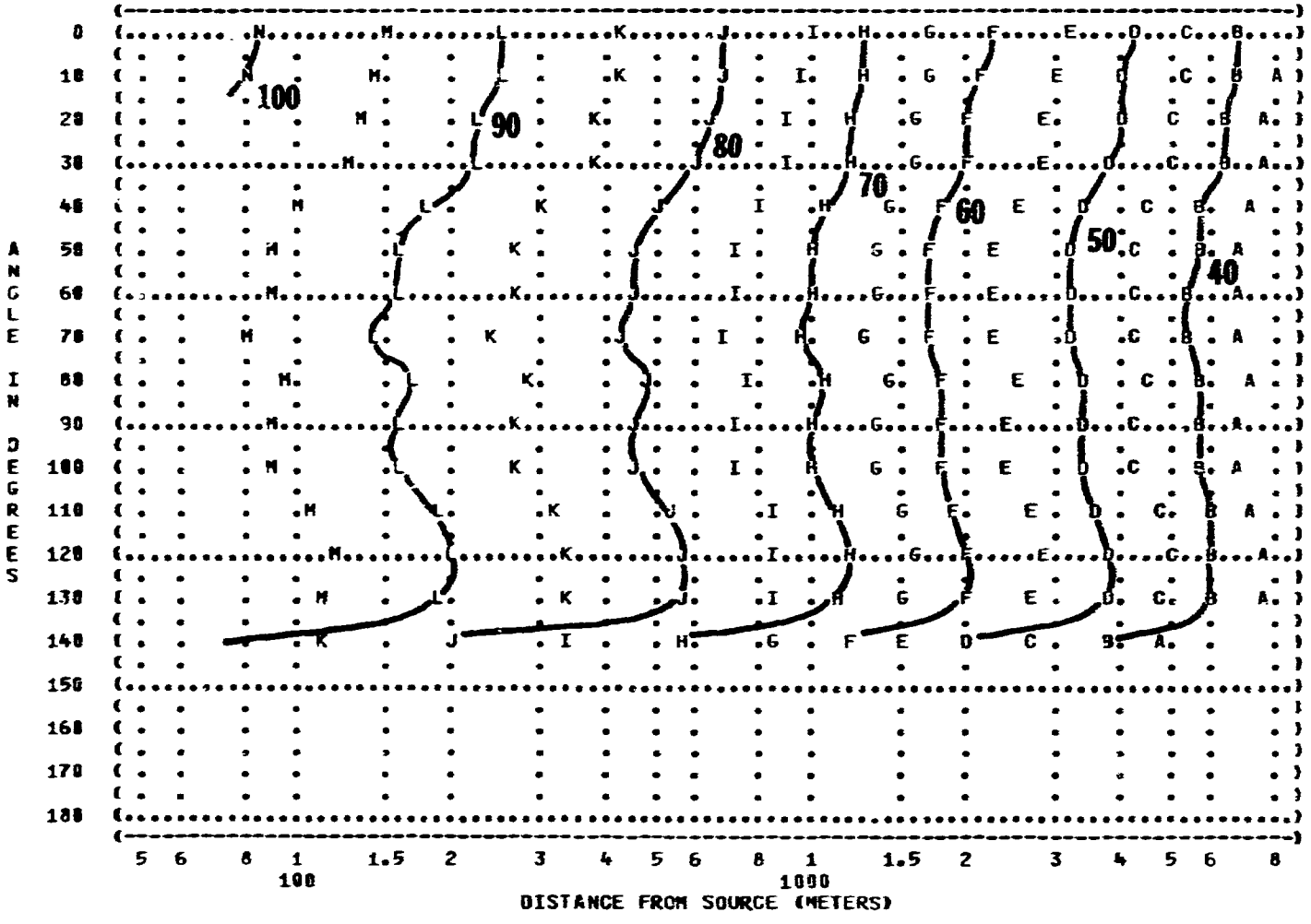
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 22



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

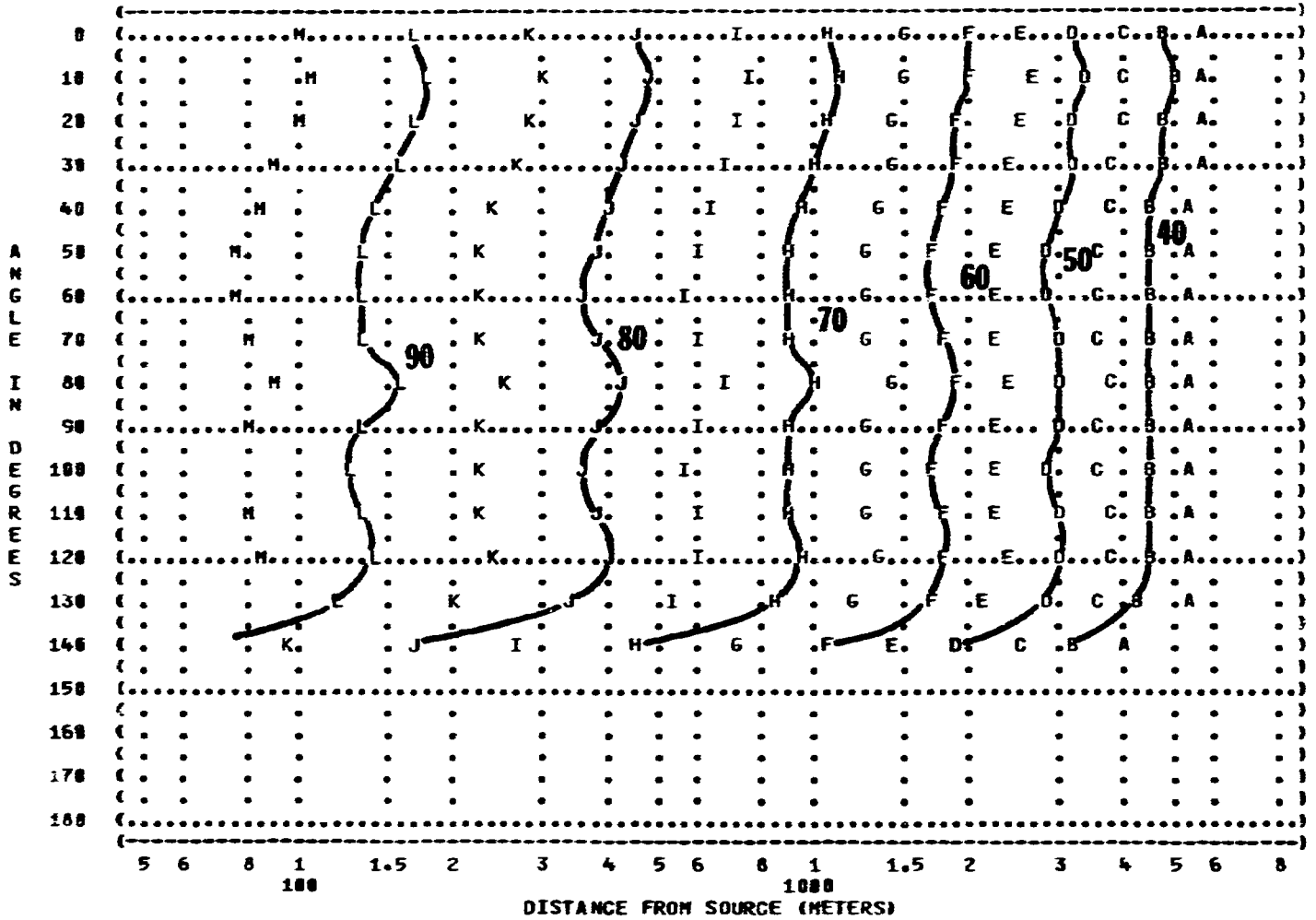
FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 23



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

FIGURE: 10

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 24

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

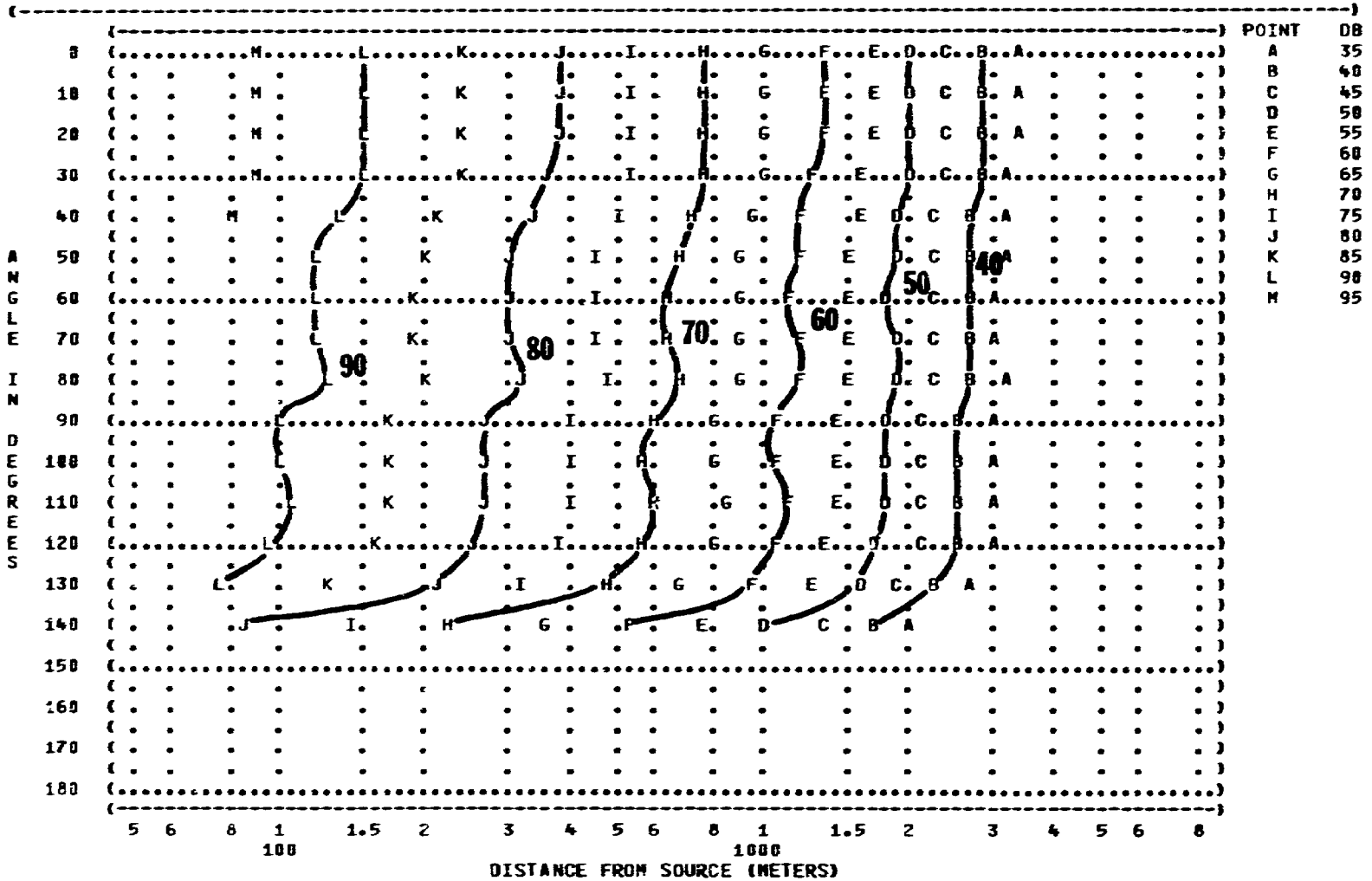


FIGURE 10 SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 25

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

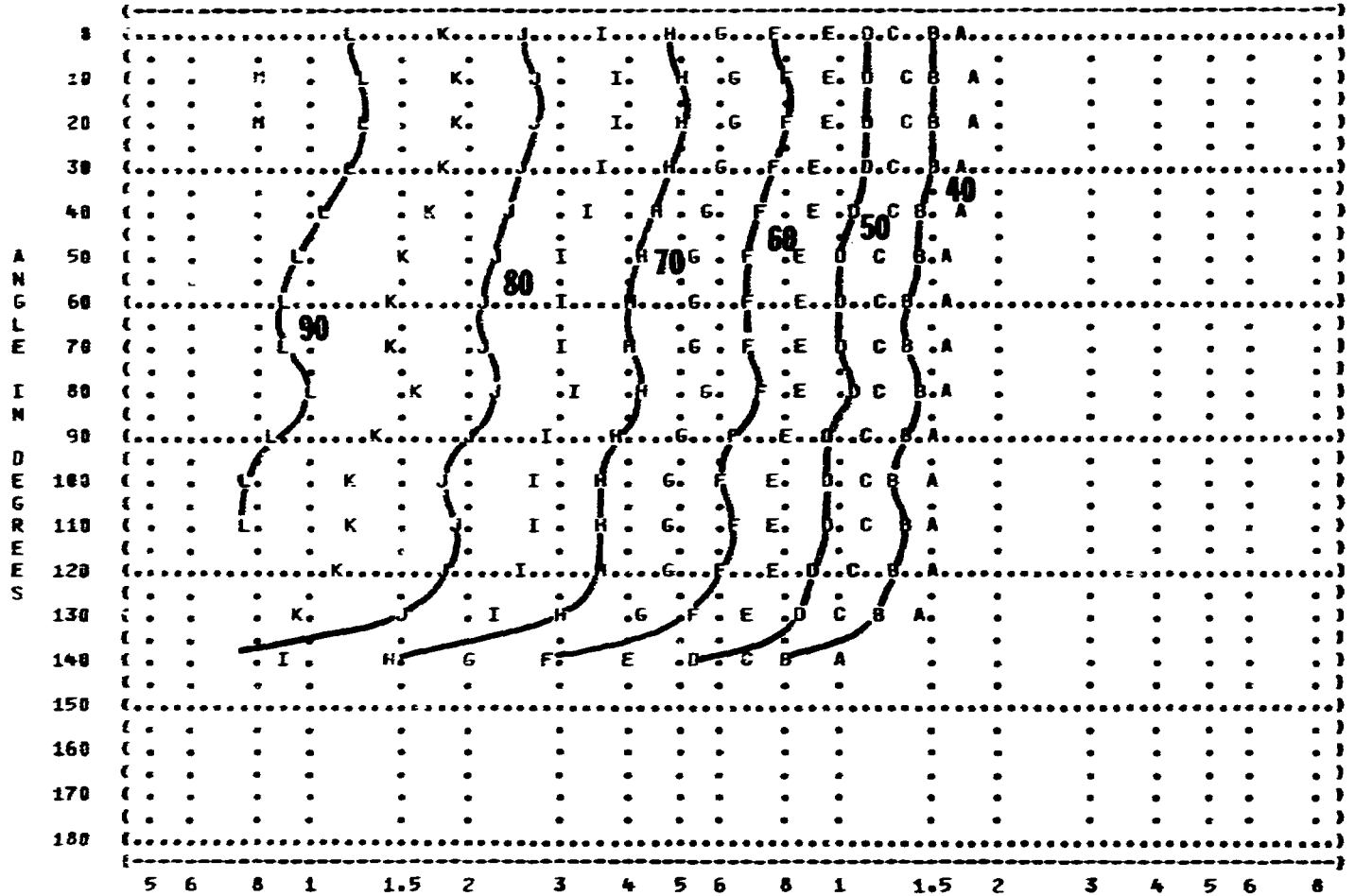


FIGURE: 10

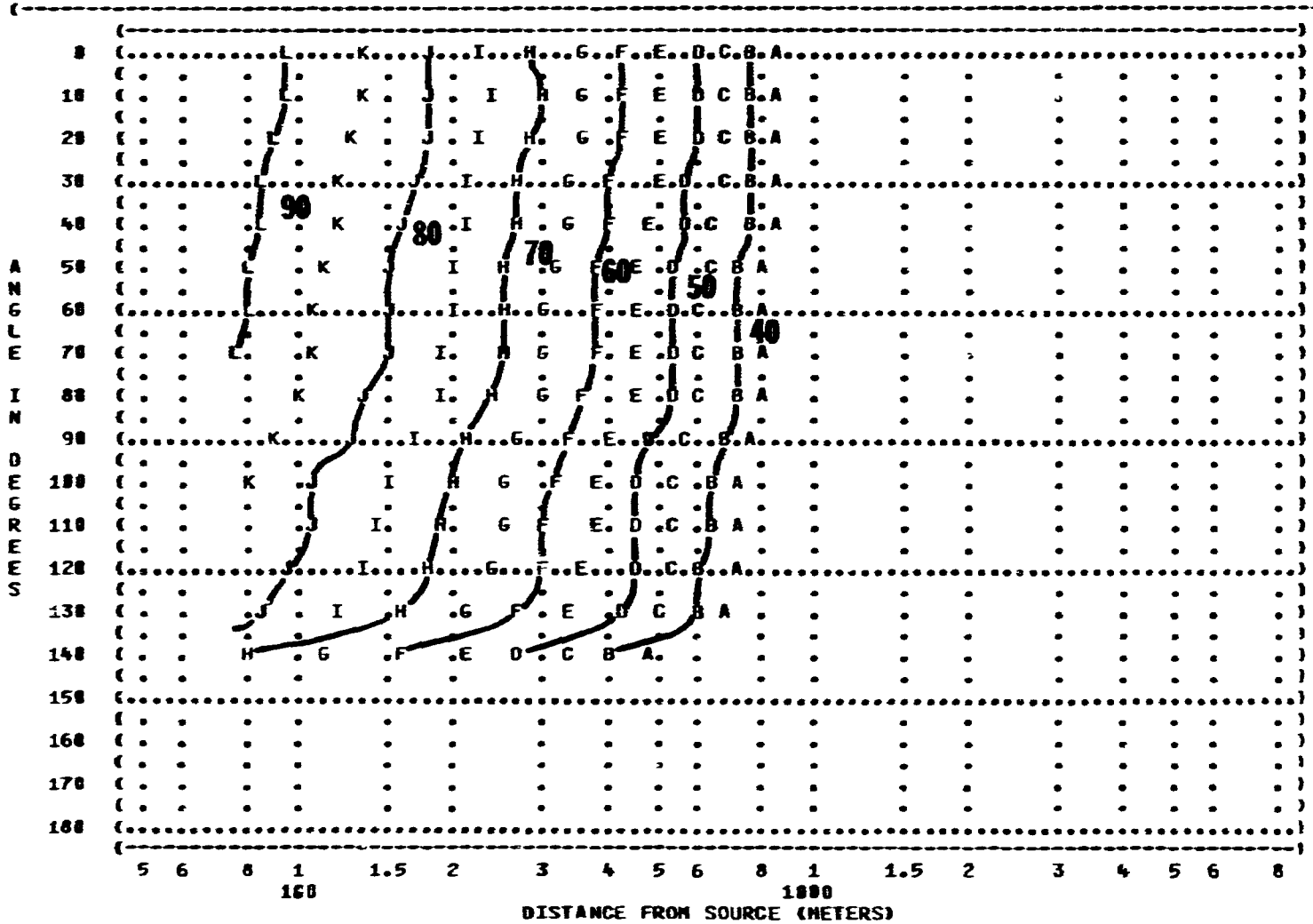
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8888 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3750 ENGINE SHP
INBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 03
08 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90

FIGURE 10: SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
31.5 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 18

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85

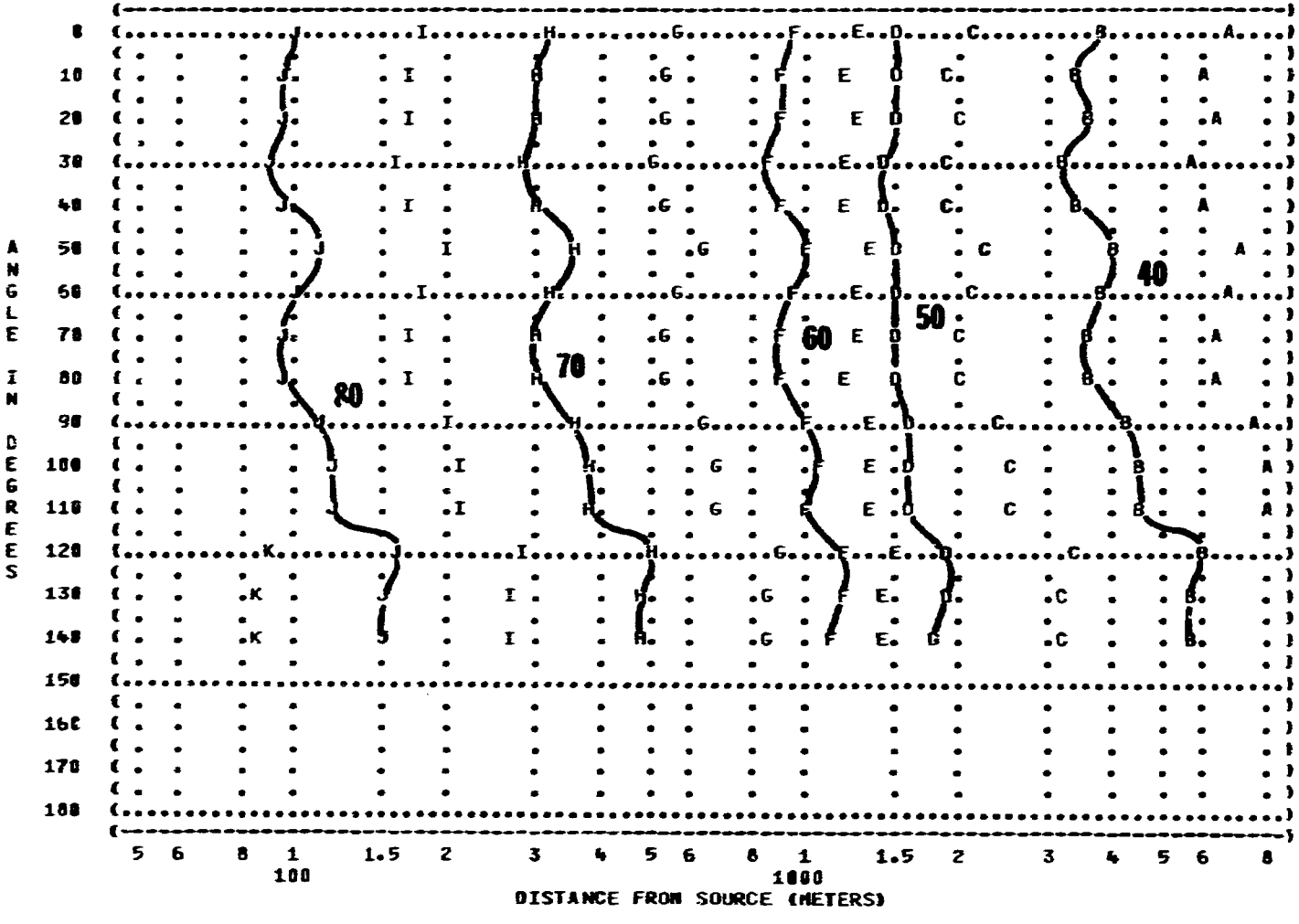


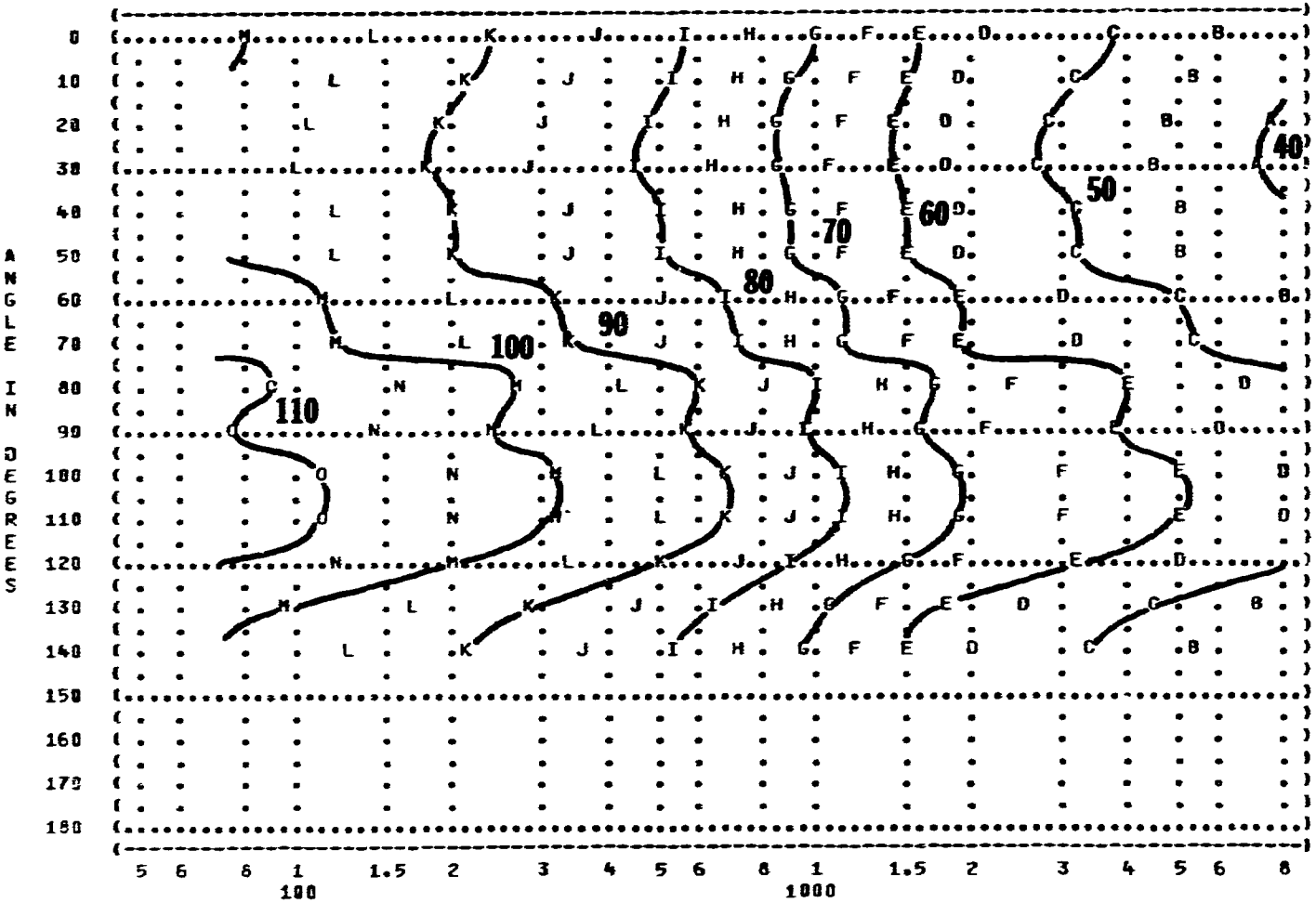
FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 63 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 04
08 MAY 75
PAGE 19



POINT	DB
A	40
B	45
C	50
D	55
E	60
F	65
G	70
H	75
I	80
J	85
K	90
L	95
M	100
N	105
O	110

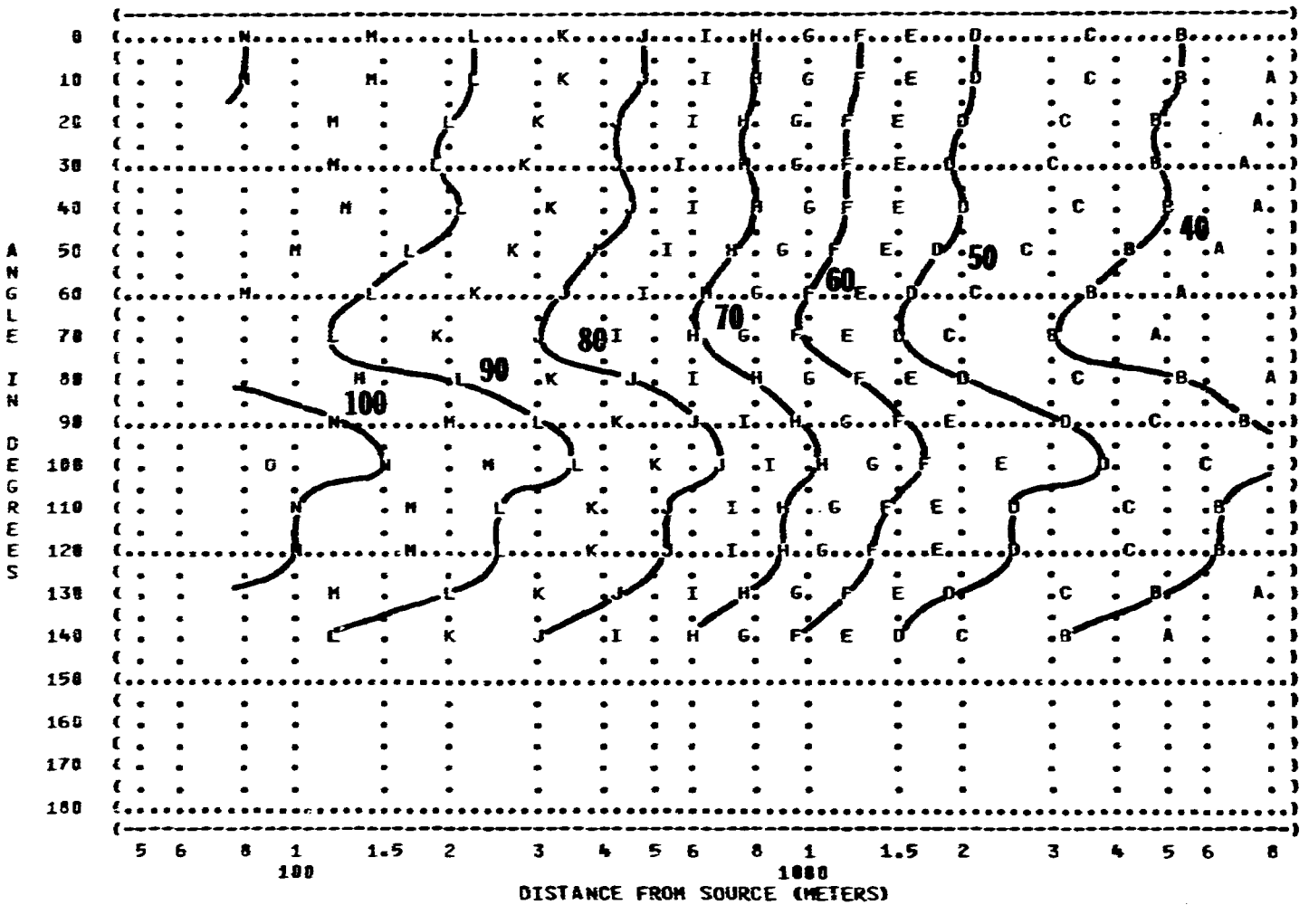
FIGURE 10: SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 125 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-082-041
RUN 04
08 MAY 75
PAGE 20

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105

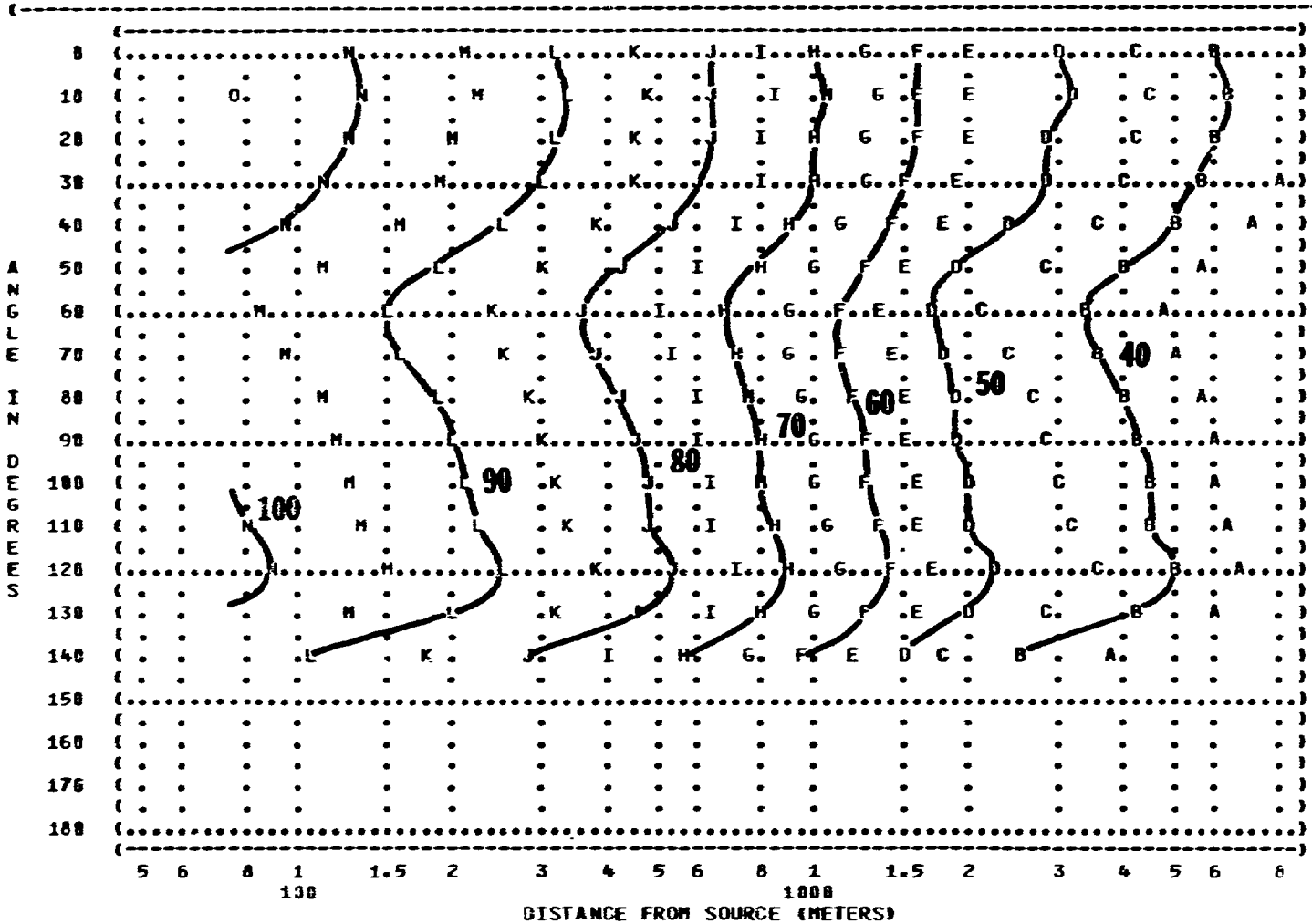
FIGURE: 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 250 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 21

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100
O	105

FIGURE: 10

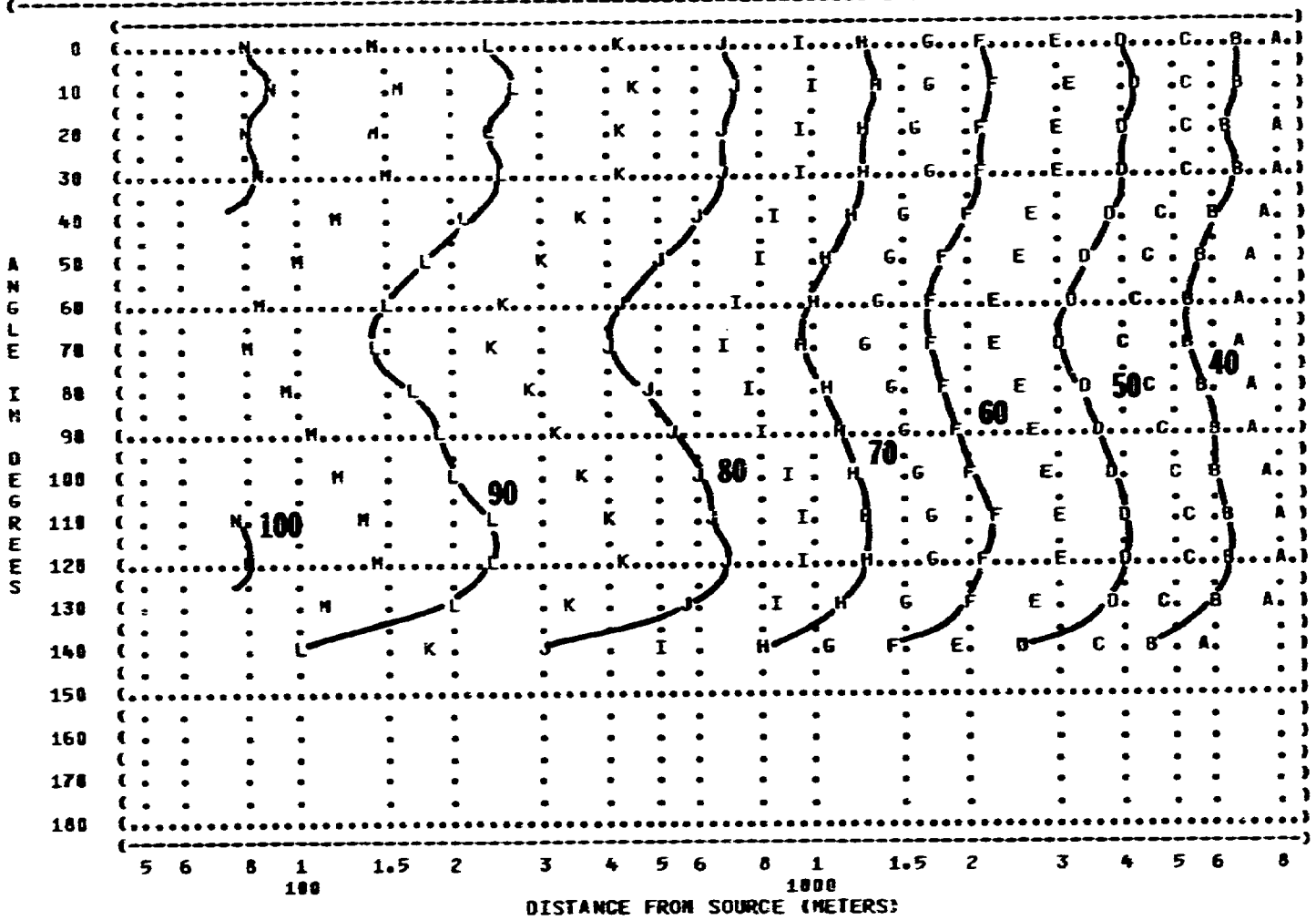
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
500 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-802-041
RUN 04
08 MAY 75
PAGE 22



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95
N	100

FIGURE: 10 SOUND PRESSURE LEVEL (SPL) EQUAL LEVEL CONTOURS (DB) 1000 HZ OCTAVE BAND

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 23

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

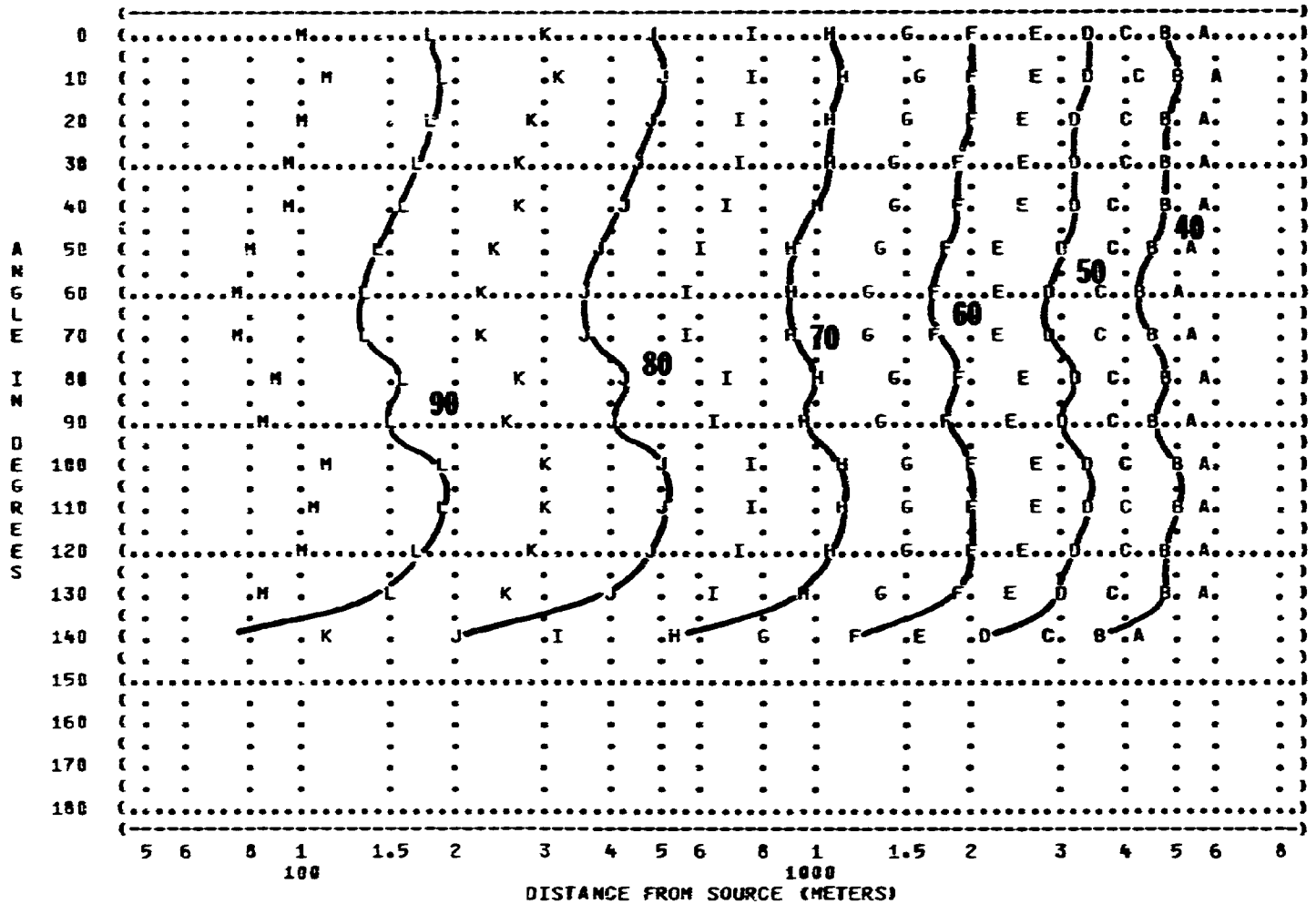


FIGURE: 10

SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
2000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:

P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

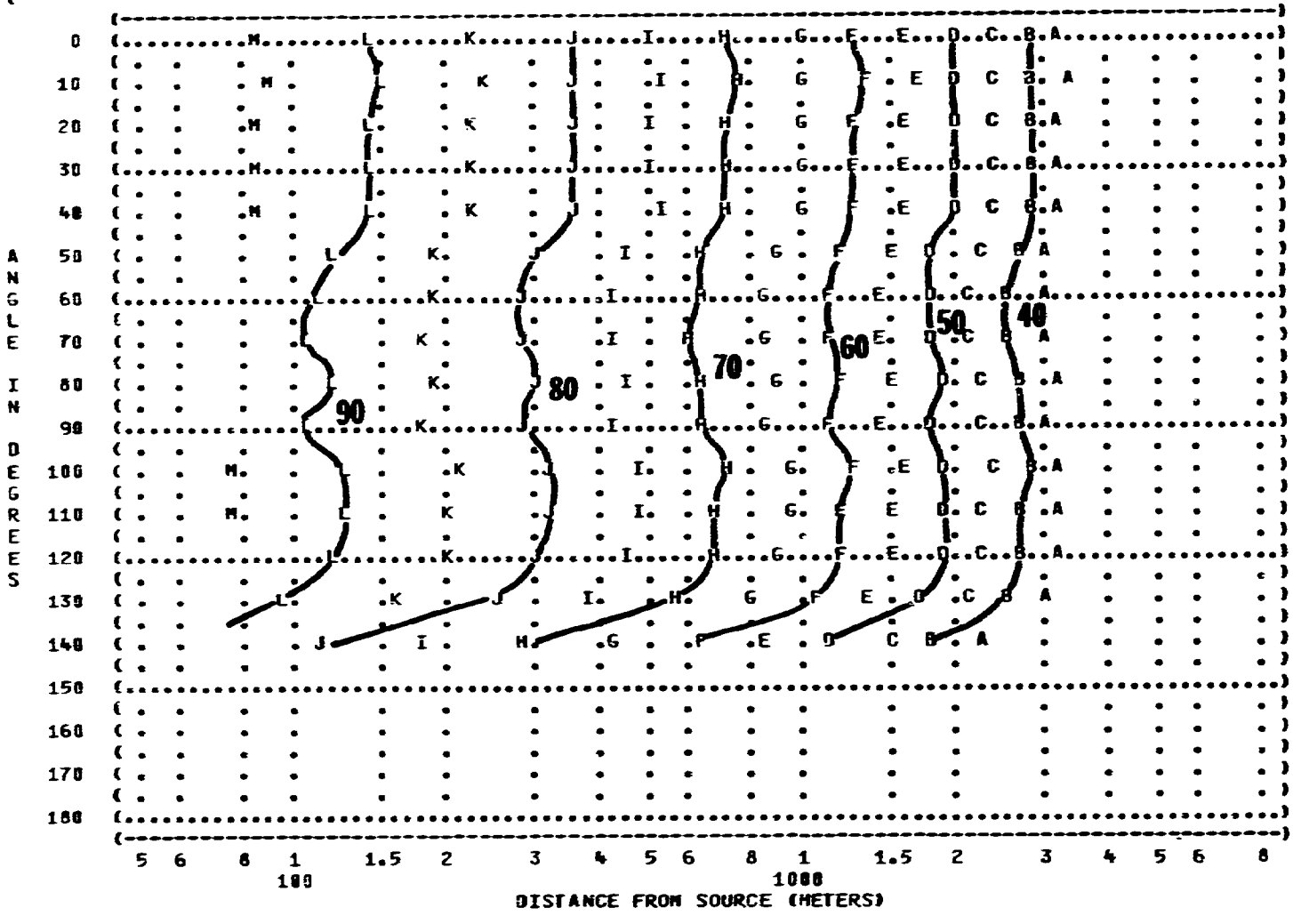
OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04

08 MAY 75

PAGE 24



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

FIGURE: 10

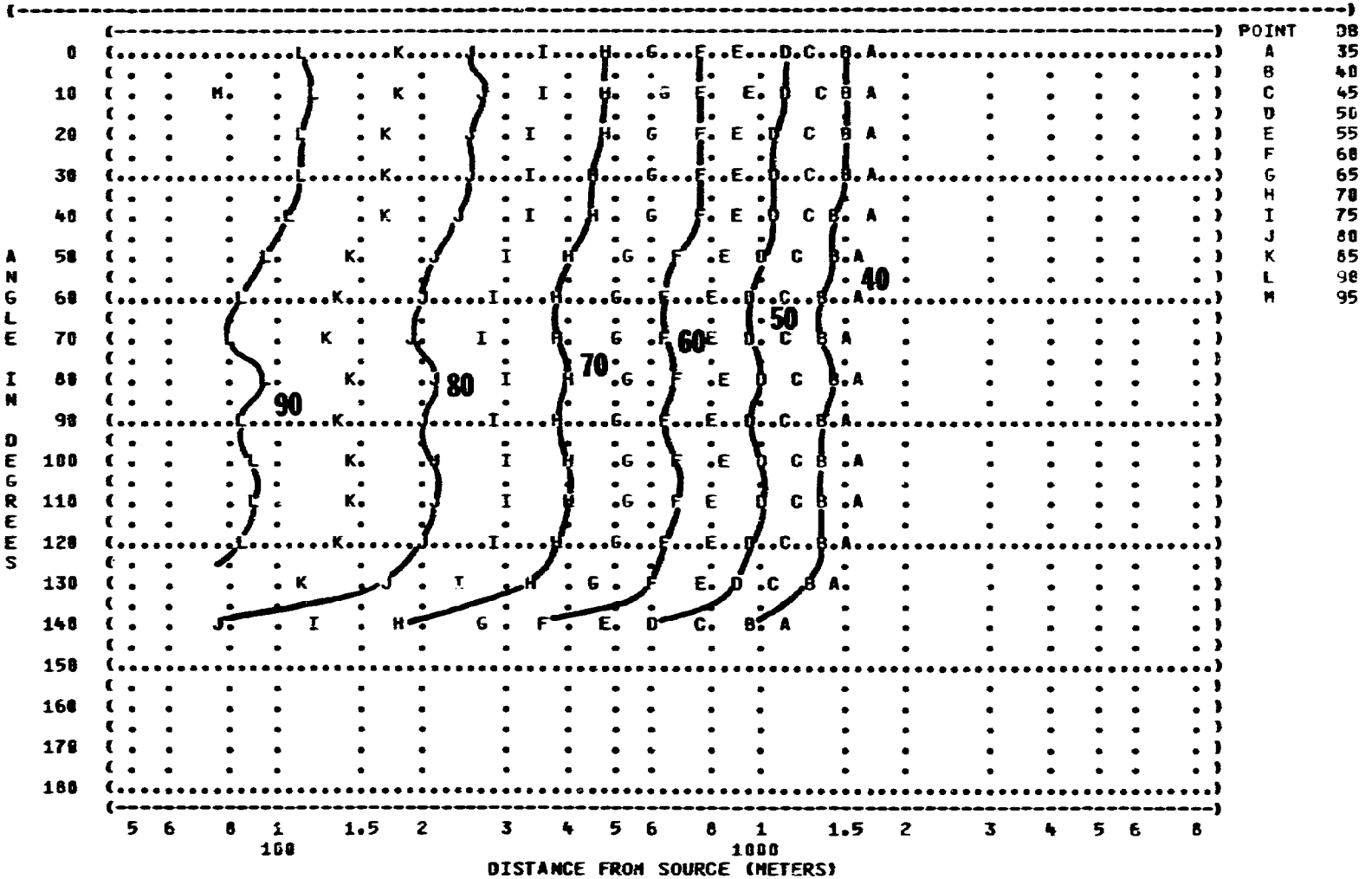
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
4000 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 25



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90
M	95

FIGURE: 10

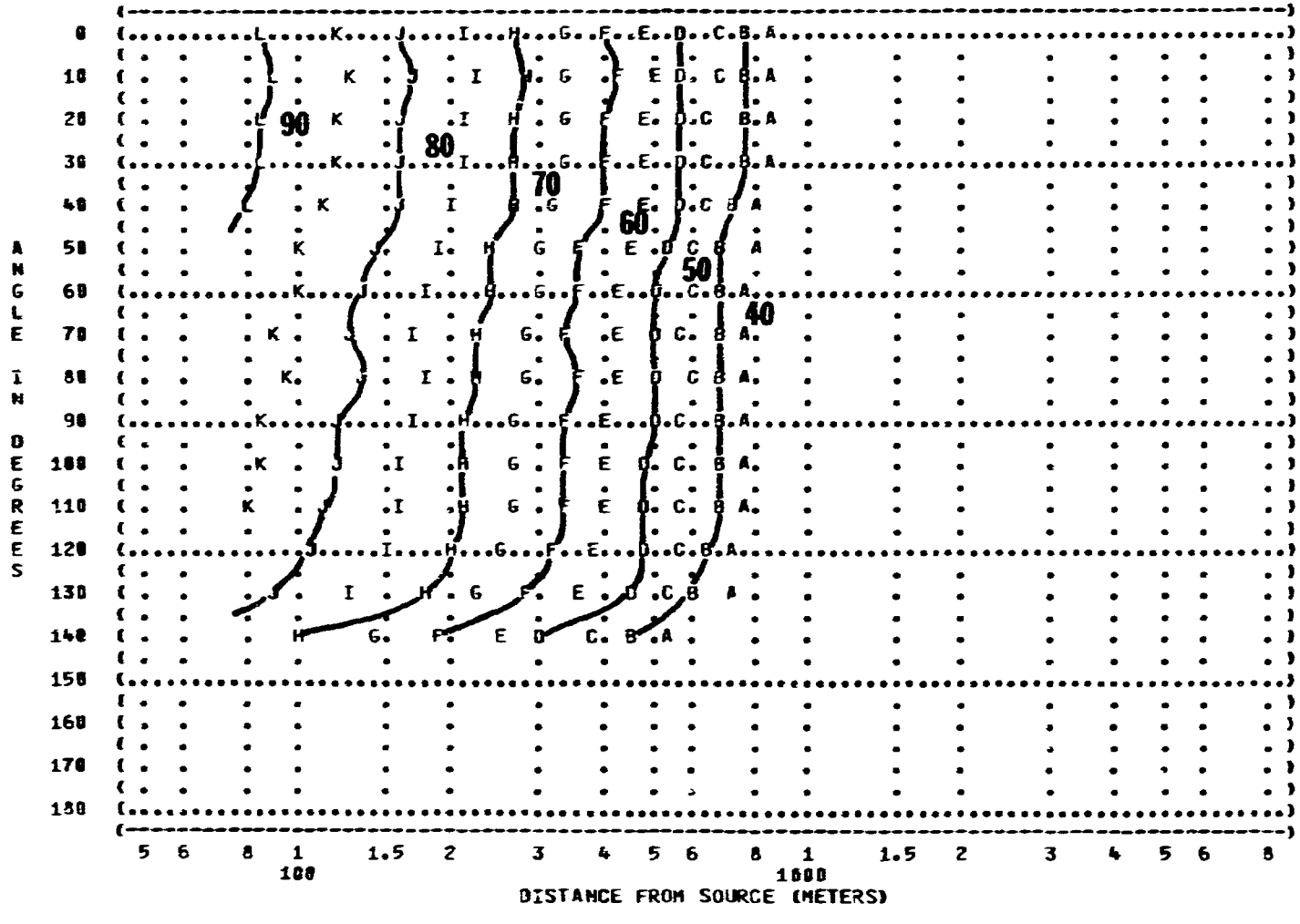
SOUND PRESSURE LEVEL (SPL)
EQUAL LEVEL CONTOURS (DB)
8880 HZ OCTAVE BAND

NOISE SOURCE/SUBJECT:
P-3A AIRCRAFT
T56-A-10 ENGINE
FAR FIELD NOISE

OPERATION:
MILITARY POWER
3760 ENGINE SHP
OUTBOARD ENGINES

METEOROLOGY:
TEMP = 15 C
BAR PRESS = .760 M HG
REL HUMID = 70 %

IDENTIFICATION:
OMEGA 1.4
TEST 75-002-041
RUN 04
08 MAY 75
PAGE 26



POINT	DB
A	35
B	40
C	45
D	50
E	55
F	60
G	65
H	70
I	75
J	80
K	85
L	90